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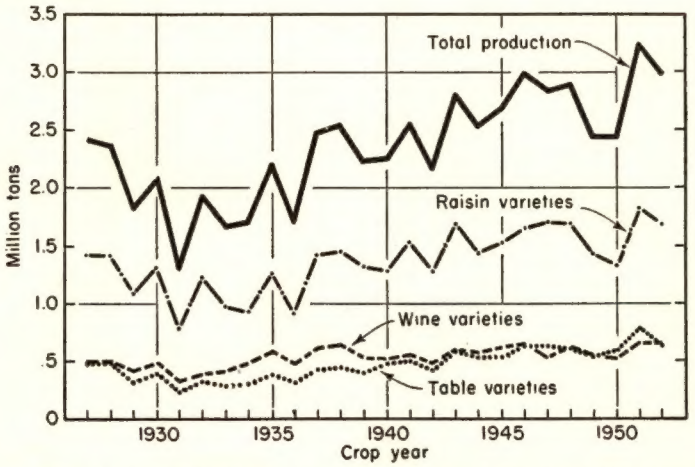
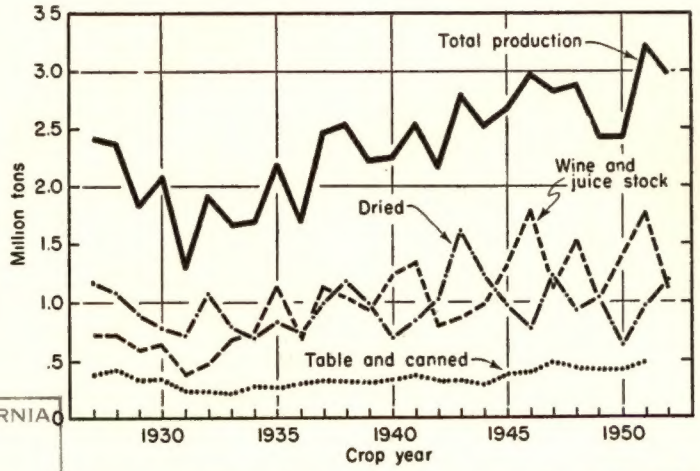
MARKETING PROBLEMS for CALIFORNIA GRAPES

GUY BLACK



Production of California Grapes by Varietal Classes, 1927–1952.



Production and Utilization of All California Grapes, 1927–1952.

Source of data: S. W. Shear, mainly from reports of U. S. Crop and Livestock Reporting Service.

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MARKETING PROBLEMS FOR CALIFORNIA GRAPES

by

Guy Black

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I. Introduction

The Grape Situation

With the 1951 harvest the California grape industry again found itself in a disturbed economic situation, comparable to that in a number of previous years when large crops were experienced--3,224,000 tons were more grapes than could easily be managed. This record-breaking tonnage was one-third greater than 1950's moderate sized crop. In all, 1.8 million tons of raisin variety grapes, 770 thousand tons of table variety grapes, and 650 thousand tons of wine variety grapes were produced. Early actions of growers and buyers, unduly influenced by the price relationships of 1950, reflected the expectation of a moderate sized crop, and an especially profitable winery outlet. When marketings were completed, it was discovered that many growers would have received more for their grapes if they had marketed them differently, and that they, as well as the handlers, suffered considerable loss from misjudging the crop.

The burden of carrying the 1951 crop fell upon the wine industry. Over 1.6 million tons were crushed commercially, and by December, 1951, wine inventories had increased by nearly 25 per cent over inventories held the previous year. Despite the shortness of the 1949 and 1950 crops, maintained at high prices since the middle of 1950, the wine industry already had substantial inventories. At average rates of shipment, which is our best estimate of consumption, the new 1951 crop increased inventories as follows:

Number of Months' Supply on Hand, California Table and Dessert Wine December 31, Assuming 1949-50 Average Consumption Rates

	1952 a/	1951	1950
Table wine	28 months	24 months	19 months
Dessert wine	27 months	20 months	16 months

Source: Wine Institute's "Annual Wine Industry Statistical Survey."
a/ Special preliminary estimates.

Coincident with the crushing of the new crop, wine prices dropped substantially, wiping out gains realized in the value of inventories since the

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I. Introduction

The Grape Situation

With the 1951 harvest, the California grape industry again found itself in a disturbed economic situation, comparable to that in a number of previous years when large crops were experienced--3,254,000 tons were more grapes than could easily be marketed. This record-breaking tonnage was one-third greater than 1950's moderate sized crop. In all, 1.8 million tons of raisin variety grapes, 770 thousand tons of table variety grapes, and 650 thousand tons of wine variety grapes were produced. Early actions of growers and buyers, unduly influenced by the price relationships of 1950, reflected the expectation of a moderate sized crop, and an especially profitable winery outlet. When marketings were completed, it was discovered that many growers would have received more for their grapes if they had marketed them differently, and that they, as well as the handlers, suffered appreciable loss from misjudging the crop.

The burden of carrying the 1951 crop fell upon the wine industry. Over 1.6 million tons were crushed commercially, and by December, 1951, wine inventories had increased by nearly 25 per cent over inventories held the previous year. Despite the shortness of the 1949 and 1950 crops, maintained at high prices since the middle of 1950, the wine industry already had substantial inventories. At average rates of shipment, which is one best estimate of consumption, the new 1951 crop increased inventories as follows:

Number of Months' Supply on Hand, California Table and Dessert Wine December 31, Assuming 1949-50 Average Consumption Rates

	1950 2/	1951	1950
Table wine	26 months	34 months	19 months
Dessert wine	27 months	30 months	16 months

Source: Wine Institute's "Annual Wine Industry Statistical Survey."

2/ Speaking preliminary estimates.

Coincident with the crushing of the new crop, wine prices dropped substantially, wiping out gains realized in the value of inventories since the

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fall of 1949 and threatening a low return to growers for the 1951 crop. Prices for dessert wine, as reported by the Market News Service, dropped from an early 1951 level of 85 cents per gallon to 32 cents in the summer of 1952. Table wine prices moved down also but remained higher than the prices of dessert wine despite the usual postprohibition price relationship between these two classes. With large tonnages of the 1951 crop crushed by the wineries, prices paid for grapes for crushing took a nose dive. Growers who delivered to cooperatives or under cooperative crushing contracts also were hard hit.

Although the wine industry was hardest hit by the surplus and the decline in prices, throughout the grape industry concern was felt over the surplus problem. A flooded dessert wine segment in one year can mean potential difficulty for the raisin and fresh segments in the next.

Control Programs as a Remedy

This new demonstration of a long-standing problem stirred the grape industry to the contemplation of vigorous action. Committees which were set up previously to study the problem and seek a solution, dormant since the appearance of a strong market in 1950, were reactivated and expanded. A more intense interest in a unified industry effort developed than had been evident for some time.

Considerable time was spent attempting to determine why the grape industry operated so unsatisfactorily. It was not only that profits were not all that were desired but that price and marketing instability made the grape industry hard to live with and thwarted the ambitions and incentives of many for steady technological and quality improvement. Growers and handlers wanted less uncertainty, less necessity for making uninformed decisions, and a better possibility of long-run planning paying off.

Market control programs have been widely debated as a means of attacking the grape industry's problems. To evaluate the merits of these proposals, we first need to consider objectively just what the problems and objectives of the grape industry are and what market controls or any other proposed remedies can hope to accomplish.

As for the problems, their long existence suggests that there is something inherent in the structure of the grape industry which needs attention. It would be reasonable to suppose that the difficulties are the sort that have to be worked on over a period of time and could not be solved by a shot-in-the-arm type of program.

It is not hard to state in general terms what the ultimate objectives of any improvement program might be. What is wanted in the long run is a smoothly operating, self-sufficient grape industry, profitable and devoid of crises. Growers of grape varieties which are capable of shifting from one utilization channel to another should be enabled to make informed marketing decisions. A stable industry should have worked out the problems of smoothly adjusting a somewhat variable supply to a somewhat differently variable demand. Year in, year out, a fairly even flow of wine and raisins should be consumed. Excess production from large crop years should be stored and marketed over a period of several years without depressing markets unduly. Year-to-year price fluctuations should be reduced below what is experienced at present because of industry-wide policies of short-run inventory liquidation. It might be cheaper to even out production than to tolerate uneven production and compensate for it by storage operations.

For most markets, prices are the mechanism by which a free economy directs the flow of raw material into various uses. But for prices to do this in the grape industry, growers and marketers would have to know prices which would be received in each segment in advance. A stable grape industry will need a more efficient pricing system which will encourage rational allocation of the crop without the exaggerated and unstabilizing excessive price swings sometimes now experienced.

The essential feature from which many of the benefits of a satisfactorily stabilized industry would flow would be the substantial increase in the ability of industry people to base their economic decisions on accurate estimates of the future. This would permit and make worth while the laying of long-range plans. It would make it less dangerous to hold inventories. Laborsaving machinery and plants could be installed with reasonable assurance of recovering the investment over a long period. Advertising, pricing, and quality improvement programs whose effectiveness depends in part on stability would be encouraged.

We can ask two questions about control programs as they concern these long-run objectives: can programs be designed to further the achievement of the objectives; does the operation of a control program with short-run objectives reduce or delay the possibility of a satisfactory long-run adjustment.

Exactly what programs can accomplish depends on circumstances which must be closely studied. Only with sound information can the capabilities of programs be adequately analyzed with a view to increasing profitability and reducing uncertainty. Before sponsoring a program, it would be well to make sure that the specific objectives pursued are actually possible.

It is not hard to state in general terms what the ultimate objectives of any improvement program might be. What is wanted in the long run is a smoothly operating, self-sufficient grape industry, profitable and devoid of crises. Growers of grape varieties which are capable of shifting from one utilization channel to another should be enabled to make informed marketing decisions. A stable industry should have worked out the problems of smoothly adjusting a somewhat variable supply to a somewhat differently variable demand. Year in, year out, a fairly even flow of wine and raisins should be consumed. Excess production from large crop years should be stored and marketed over a period of several years without depressing markets unduly. Year-to-year price fluctuations should be reduced below what is experienced at present because of industry-wide policies of short-run inventory liquidation. It might be cheaper to even out production than to tolerate uneven production and compensate for it by storage operations.

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Exactly what programs can accomplish depends on circumstances which must be closely studied. Only with sound information can the capabilities of programs be adequately analyzed with a view to increasing profitability and removing the specific objectives pursued as feasibly possible.

Before sponsoring a program, it would be well to make sure that

One example of an impossible objective is the desire that returns in the grape industry should for a long period of time be higher than returns in comparable agricultural and business enterprises. This is impossible so long as growers and businessmen are free to enter the grape industry and compete with those already established on an equal basis. Under such conditions, a control program cannot produce abnormally high returns.

The various possible objectives of programs are not independent. If the elements of uncertainty were reduced, after any long quiescent period, returns to investment, wage rates, and entrepreneurial profits would be expected to be comparable to those in alternative types of farming and processing, and the grape industry would have boiled itself down to those firms and farms which could supply demand efficiently at normal profits.

The fact that remedial efforts are most pushed in periods of stress has tended to suppress interest in the long-run aspects of control programs or the development of long-run industry plans. Yet there is a need for long-run plans. Control programs are likely to have undesirable effects which grow in significance. For this reason, short-run programs are most likely to be successful, but the process of inaugurating a control plan is rather long run in character, even where the plan itself is short run in character. Before the design of a proposed control is undertaken, consideration should be given to how that program fits in with the long-run objectives which the grape industry will favor.

Such programs as surplus removal are specially contrived market devices. They tend to create problems by their own operation so that the body of regulation and control necessary to keep them going tends to become more unwieldy and less adaptable to changing conditions. For such reasons, many favor control programs only as short-run palliatives for temporary difficulties. However, such programs as quality controls, advertising, research, and regulation of unfair practices may well achieve permanent place and be continued indefinitely with beneficial effect.

Whether or not there is a place for long-run surplus control programs depends on whether the occurrence of surpluses is a temporary difficulty from which the grape industry will eventually recover, whether it is a perennial difficulty arising out of conditions inherent in the industry, and whether the existence of a program creates problems of its own. It is doubtful if we could ever achieve a completely free enterprise economy in the modern world, if a completely unregulated marketing would work for the grape industry, or if

grape markets could be so regulated and supplied with marketing information that a satisfactory pricing mechanism would be the result. It would seem, therefore, that some reliance will continue to be placed on market controls. But whether the programs can solve the organizational problems necessary for their own continued long life, even with governmental assistance, is also problematical. It may be that periodic suspension and reinaugeration, much as some states periodically replace their constitutions, are necessary to prevent hardening of the arteries in a control program.

II. The Grape Industry Surplus Situation

Definition of Surplus

The popular usage of the term "surplus" is to apply it to any part of a crop which is not wanted. A more precise definition of the term is needed, however, and can be derived from basic economic concepts.

A meaningful definition of surplus is bound up with the issue of what is an adequate price level. For example, it would not be satisfactory to define surplus as what could not be sold regardless of how low prices fell; through the movement of prices, the market usually brings supply and demand into equality so that everything on the market is sold.

A good definition of surplus identifies as a surplus situation the condition when the available supply and the level of demand produce a price lower than some accepted standard. Thus, when price is below such a standard, it may be taken as an indication of the existence of a surplus and the size of the surplus would be the quantity whose nonexistence would have permitted a "standard" price.

The crux of the definition is the manner in which the price standard is developed. Parity prices are one possible standard. Some price may be picked out of the air to be accepted as the standard perhaps by a program committee. How high or low the standard is set is the key to how large the surplus is judged to be in any given situation.

One possible standard price which has a great deal of economic logic behind it may be called the "long-run normal price." This price may be defined as that which eventually would prevail after a long period of economic stability devoid of changes in such things as tastes, technology, costs, and income distribution. On the assumption that all of such factors will continue indefinitely to be what they are at present, we could calculate a long-run normal price to fit present conditions. With given assumptions regarding these factors and

providing that we have an economy meeting the tests of theoretical perfection, the long-run normal price is an absolute standard which may be calculated for use in estimating the amount of surplus.

The significance of this long-run normal price is that it is the essence of the long-run equilibrium position toward which the economy is always being directed by the automatic action of the market place. It is the only price consistent with long-run economic stability and, whenever actual prices deviate from it, as they usually do, economic forces tend to bring them back into line although not necessarily at a rate which irons out shorter run economic fluctuations. For example, a price above the long-run normal may be the result of a short supply, in which case that high price itself leads producers to expand the supply of the item by devoting more of the resources of the economic system to its production. A price lower than the long-run normal would have the opposite effect. The long-run equilibrium price is that which, after the results of all economic disturbances have been smoothed out, would provide producers, taken as a group, neither with economic incentives to expand production nor reason to contract it. This equilibrium situation, characterized by an absolutely stable long-run supply, can exist only when the price is enough just to yield producers returns which cover costs of the most efficient possible means of production plus a rate of profit equivalent to what might be obtained in any possible alternative enterprise.

It is this last fact which justifies the use of the long-run normal prices as a standard. Clearly, a standard cannot be used which provides for either exhorbitant profits, or losses, or which does not penalize inefficiency in production, or which is inconsistent with the normal clearing of the market by the equating of demand and supply at the long-run normal price. Given the long-run stability which produces the long-run normal price, this is the only price which enforces maximum efficiency, normal profits, and long-run stability in production and consumption.

Evidence of a Long-Run Surplus

A surplus can be detected not by only comparing consumption with production but also through a consideration of prices. Unless there is dumping, waste, or diversion, the price mechanism will operate to insure that there will be no substantial difference between average consumption and production rates. Season average returns per ton to growers for bulk fruit at first delivery point have

averaged, in the period 1947 to 1951, $41.30 per ton, equivalent fresh weight.2/ We have no precise figures on cost of production, but it is doubted that such a rate of return could be claimed to be too low to support the present level of production. It must be borne in mind, however, that this rate of return is the result of federal support which, by financing the disposition of surplus raisins, has eased the burden of removing them from domestic commercial markets.

While raisin production has averaged 238,700 tons, sweatbox basis, in recent years, on the average about 70,000 tons per year has been absorbed by federal purchase or moved by federal subsidy. Without that assistance the commercial raisin price would have been considerably lower. Some of the raisins supported by government purchase would have appeared in other sectors of the grape industry as other grape products.

How much of the 70,000 tons of raisins sold per year with federal aid should be called surplus would depend on (a) how much might have moved into the nonsubsidized foreign outlets for raisins even without the federal subsidy, and (b) how much below the average rate of return actually obtained during the period was the "maintenance" rate of return. If we grant that the actually experienced rate of return of $41 was, on the average, adequate in postwar years, it would be reasonable to assume that the volume of grapes, which could be called surplus, could not be any more than the equivalent of 70,000 tons of raisins and probably would be less.

How much adjustment in production or consumption or how much surplus removal would be necessary to maintain the postwar rates of return is indicated by contrasting postwar consumption in normal markets with total production. So far, federal aid has served to remove the surplus without strong action on the part of the industry itself. Through the purchase of surplus raisins, it has influenced the level of prices of the entire grape industry. The alternatives open to the industry are continual federal aid, adjustments in either consumption or production rate to close the gap, a surplus removal program, or temporary acceptance of prices low enough to squeeze out surplus production.

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2/ When broken down by types, equivalent fresh weight returns per ton for wine varieties averaged $42.60; for table varieties, $40.40; for raisin varieties sold fresh, $41.60; for raisin varieties dried, $41.20; or $165 per ton of raisins. Source of data: California Crop and Livestock Reporting Service, "California Fruit and Nut Crop Annual Survey as of December, 1951."

Fresh Grape Consumption

Recently, fresh table use in the United States has averaged about 400,000 tons per year of California grapes and about 35,000 tons of grapes produced out of state. There is evidence of an upward trend in table grape shipments. In general, postwar shipments have exceeded those of before the war, and there has been an expansion of cold storage facilities which makes fresh grapes available on a round-the-calendar basis.

Wine Consumption

The wine consumed in the United States comes from foreign and domestic commercial sources, and substantial quantities are homemade. The commercial vintners are, of course, the most important outlet for domestic wine grapes.

Since the end of World War II, net table wine production in the United States has averaged nearly 30 million gallons per year, of which an average of 21 million came from California wineries. However, out-of-state wineries are increasingly important, so that the season 1950-51 saw the smallest California production of table wine since before the war and also saw out-of-state production nearly equal to California production for the first time. This total of United States production probably accounted for about 150,000 tons of grapes.3/

Consumption of dessert wine, which averaged 97 million gallons from 1946 to 1950, has shown a tendency to increase. It is consumed at rates considerably in excess of prewar consumption, although fluctuating considerably. Somewhat over a million tons of grapes are used each year in dessert wine production.

Foreign supplies of wine for the United States market are small compared to the domestic supply. In recent years, imports have averaged around 2 million gallons of table wine and 700,000 gallons of dessert wine, plus about one and a half million gallons of vermouth and 600,000 gallons of sparkling wine. Foreign supplies of fine table wines are an increasingly significant competitor for the better grades of domestic table wine but are of lesser importance for the standard wines, especially the dessert wines. Some wine is also made from grapes grown in states other than California, about 115,000 tons being crushed annually to make table wine, grape juice, or other products.

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3/ On the assumption that California wineries produced 175 gallons of table wine to the ton and out-of-state where much "Kosher" wine is produced from blends of grape juice, sugar, and water, the average was 250 gallons to the ton.

TABLE I

Federal Assistance to the California Grape Industry, 1947-1951

	1947-48	1948-49	1949-50	1950-51	1951-52[a/]
Crop size Million tons of grapes	2.8	2.9	2.5	2.4	3.2
Federal purchase or subsidy					
Raisins, 1,000 of tons	118.0	64.0	94.0	--	72.0
Fresh grape equivalent, 1,000 tons	472.0	256.0	376.0	--	288.0
Crop marketed with no federal help Million tons of grapes	2.4	2.6	2.1	2.4	2.9
Per cent of total grape crop receiving help	17.0	8.0	15.0	--	9.0

a/ Some data preliminary.

Sources: Compiled by Fruit and Vegetable Branch, Production and Marketing Administration, United States Department of Agriculture, and S. W. Shear, "Grape Industry Statistics as of November, 1951."

TABLE II

Federal Government Expenditure and Tonnage Involved in Assistance Programs on Raisins, July, 1947, to August, 1952

Year beginning July	Total		Direct purchase				Export subsidies		Diversion payments	
			School lunch and institutional feeding		Export disposition					
	Quantity	Expenditure	Quantity	Expenditure	Quantity	Expenditure	Quantity	Expenditure	Quantity	Expenditure
	1,000 tons	million dollars	1,000 tons	million dollars	1,000 tons	million dollars	1,000 tons	million dollars	1,000 tons	million dollars
1947-48	118	19.0	7	1.1	111	17.9	--	--	--	--
1948-49	64	9.8	4	0.7	55	8.9	4	.2	--	--
1949-50	94	8.1	2	0.2	--	--	74	6.3	18	1.5
1950-51	--	--	--	--	--	--	--	--	--	--
1951-52	72.0	4.2	--	--	--	--	71.7	4.2		

Source: Compiled by Fruit and Vegetable Branch, Production and Marketing Administration, United States Department of Agriculture.

On the average, about 144,000 tons of wine grapes are shipped annually from California vineyards for the home plus out-of-state manufacture of wine. While use in homes seems to be decreasing, out-of-state commercial crushing is growing more important.

Raisin Consumption

For the postwar period the United States market has been the one on which domestic raisin and currant production must depend. Canada has usually been considered part of the American market but often imports substantially from other areas. Domestic and Canadian consumption has run rather steadily at about 155,000 tons per year for a long time, thereby accounting for about 620,000 tons of grapes. Exports other than those federally subsidized have been very small in recent years although prior to the war the commercial export market was of importance, accounting for up to 85,000 tons per year.

Other Grape Products

Brandy accounts for about 60,000 tons of grapes per year, and canning, principally as an ingredient of fruit cocktail, accounts for 20,000 tons. Of United States grape production about 25,000 tons are consumed by the growers of the farm, mainly in the states outside of California. Relatively minor uses such as wine, vinegar, grape juice, and grape concentrate have not been a significant market outlet, although marketing experience with all of them has indicated the existence of potential sales outlets.

Summary

Although recent experience is useful as an indication of what kind of consumer buying behavior to expect, patterns of consumption do change. Trends and crosscurrents in trends of demand appear if we give consumption data close scrutiny. Changing tastes, price levels, increased population, increased national income, and changes in the export market all have effects, and they are sometimes hard to untangle.

We may estimate in a rough way reasonable expectations for United States consumption of grapes and grape products if we first make the following assumptions: (1) that there are no drastic changes in conditions effecting demand and (2) that prices remain at levels which will return about $40 a ton on the average to the grower. Given these assumptions, total United States demand for all grapes, plus Canadian demand for raisins, is as follows:

	Thousands of tons, fresh basis
Table grapes	435
Wine grapes shipped	144
Domestic consumption of raisins and currants	620
California table wine	150
California dessert wine	1,000
Beverage brandy	60
Grapes for canning	20
On-farm grape consumption	25
Processing and crushing outside California	115
Normal United States annual grape utilization	2,569

Of this 2.57 million tons consumption, however, about 175,000 tons is normally supplied by grapes produced outside of the state of California, mostly of Concord and other Labrusca varieties. This includes most of the 35,000 tons used fresh, the 115,000 tons processed or crushed outside California, and an estimated 25,000 tons is used on the farm. That leaves the total normal United States commercial market for California grapes at about 2.4 million tons.

For a period of about six years, therefore, California grape production has exceeded disappearance in normal domestic commercial channels by an average of about 370,000 tons per year. It seems reasonable to conclude that this amount represents production in excess of what these markets will accept at prices which will return the grower an average of $40 per ton.

The grape industry has been cushioned against the full impact of this 370,000 tons, however, There is still a small regular commercial export market for raisins, and some wine, brandy, and fresh grapes are exported. Some of this surplus is being held as wine inventories. Most important, however, is the removal by federal purchase and subsidy of, on the average, the equivalent of 280,000 tons of grapes per year.

The period of time involved suggests that there is a long-run surplus situation of the type representing excess capacity in the grape industry. The validity of this suggestion depends entirely, however, on whether the normal long-run average return which would maintain production and consumption in balance (not counting year-to-year variations) was above or below $40 per ton. At a higher rate of return, some contraction in demand would be expected, and the surplus would appear even larger than 370,000 tons. At a lower rate, the surplus would be somewhat less. However, we do not know, nor is there any easy way to find out, exactly what the long-run surplus would be if the normal long-run return were $35, $30, or even less.

Processing and crushing outside California	115
Non-farm grape consumption	25
Shrapnel for chipping	50
Beverage brandy	90
Table grapes	
Wine grapes shipped	
Domestic consumption of raisins and currants	630
Californian bulk wine	

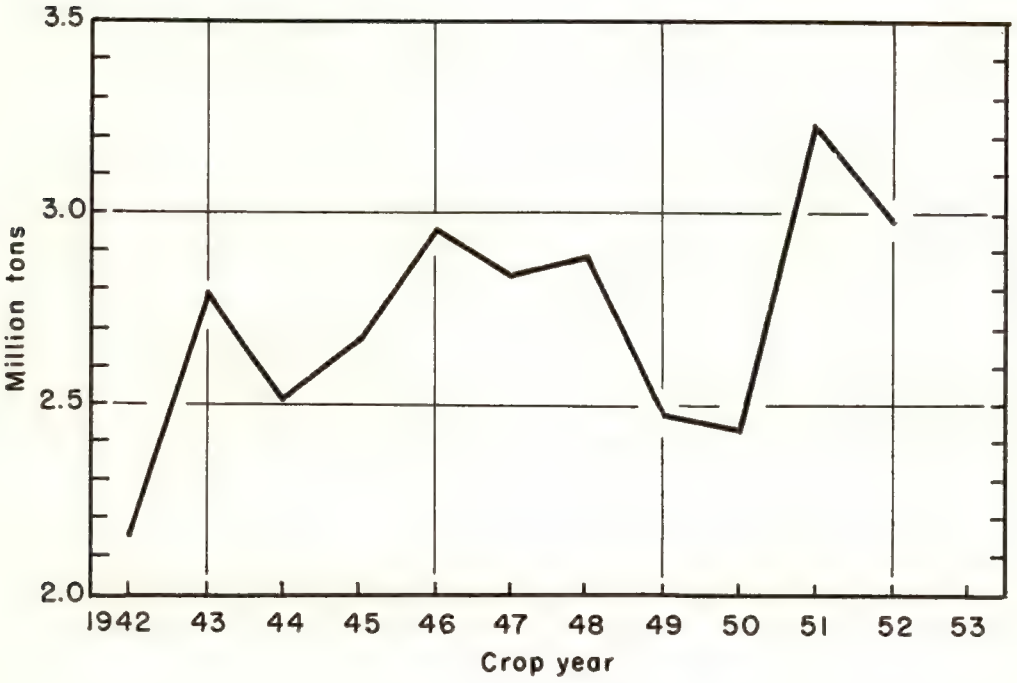

Fig. 1.—Total California Grape Production, 1941–1951.

Sources of data: S. W. Shear, "Grape Industry Statistics as of November, 1951," California Agr. Exp. Sta., Giannini Foundation Report No. 125, and U. S. Federal-State Market News Service, "Calif. Grapes, Raisins, Wine Marketing, 1951," and 1952 estimate from U. S. Crop Reporting Board.

Opinions that the surplus averages between 200,000 and 330,000 tons have been expressed by various industry people. This means that the estimaters consider normal demand to be no more than 2.45 to 2.55 million tons of grapes. The long-run average price we have chosen of $40 per ton has maintained an average production of 2.96 million tons and an average unsubsidized consumption of about 2.4 million tons.

Inventories as an Indication of Surplus Condition

Carry-overs in excess of what the trade considers normal are one of the commonly accepted signs of a surplus condition. Storage of table wine on June 30 has in recent years equaled approximately 18 months' consumption at the normal rate. Recently, the volume of dessert wine in storage at the beginning of the new season has exceeded somewhat the yearly rate of consumption. These levels may have been slightly influenced by the storage requirement provisions of the Marketing Order for Wine Processors, under which the permissible volume of sales for each vintner was related to his June inventory.

Raisin inventories, in contrast with wine inventories, reflect a hand-to-mouth inventory policy. At the beginning of the new crop year, inventories generally are less than one-tenth of a year's normal consumption. Inventories which are much larger are likely to have an adverse effect on the price received for a new crop.

The importance of the price effect of a given carry-over in any field depends on the willingness of the industry to hold it. Raisin packers are not generally willing to undergo the risk of holding large inventories, and it is generally believed that for this reason any substantial carry-over has an adverse price effect.

In certain years, notably 1947, the carry-over of wine from the previous year had an adverse effect on the price paid for grapes for crushing. With a small commercial crush in 1949, inventories were reduced, and prices moved upward again.

TABLE III

United States Stocks on Hand of Major Grape Products, Selected Dates, 1941-1952

Year	Dessert wine[a] June 30	Table wine[a] June 30	Raisins September 1	Beverage and neutral brandy June 30
	1	2	3	4
	millions of gallons		thousands of tons	millions of tax gallons
1941	76.7	41.2	35.7	16.9
1942	86.6	46.6	64.6	18.4
1943	54.1	36.9	45.7	12.7
1944	53.7	40.6	71.6	11.5
1945	56.8	46.0	32.9	12.4
1946	61.6	40.4	8.1	13.3
1947	108.7	51.4	17.3	14.9
1948	97.8	49.9	23.2	15.2
1949	111.7	50.8	24.0[b]	13.4
1950	83.0	43.9	20.8	11.3
1951	92.0	42.0	18.7	11.5
1952	120.5	50.1	17.5	14.3

[a] Stocks in bonded premises only, vermouth and sparkling wines excluded.

[b] Including 9.2 thousand tons held for the United States Department of Agriculture.

Sources: Cols. 1, 2, 4: Wine Institute, "Annual Statistical Survey, Part III" Annual.

Col. 3: United States Bureau of Agricultural Economics, unpublished data released November 22, 1949, revised by S. W. Shear, and reports of Federal Raisin Advisory Committee.

III. Allocation Problems

The same data which suggest that, provided prewar commercial raisin exports could be regained, no serious surplus would exist also suggest that short-run surplus situations existing for one or two years may continue. While a kind of every-normal granary operation would smooth out the difficulties, such an operation is by no means easy. It is most important to be able to judge the market and the production-consumption balance objectively if the pitfalls of such an operation are to be avoided. There is, of course, no assurance that every year of heavy production will be followed by years of light production.

Sector surpluses arise for the additional reason that the grape industry often overloads one particular sector in an uneconomic manner. While sector surpluses are most likely to occur in years of over-all surplus, they can also occur due to bad allocation even when there is no over-all surplus.

Difficulties in Efficient Allocation of the Crop

The multiplicity of markets in which grapes are used is recognized as complicating the problem of orderly marketing. While some grapes are specialized for certain special uses, the diversity of markets for which most grapes are suited is one of the most striking characteristics of this crop. Besides being one of the most popular fresh fruits, grapes are used for canning, wine, brandy, concentrate fresh fruit-juice, and vinegar. When dried as raisins, they are eaten as raisins or used in baking and other cooking purposes.

All grapes including the wine varieties, the most specialized of all, have several market outlets, and every year the California grape industry is faced with the problem of dividing up the available supply among the many uses. Because marketing organization is as flexible as the crop itself, there may be great differences in the way the crop is utilized in any two seasons.

The evidence is strong that the competitive forces of supply and demand will not produce an efficient utilization of the grapes harvested in any one season.

What is meant by an efficient allocation can be stated fairly precisely. It means the allocation of the crop among all possible markets in such a way that maximum net income is received by the industry as a whole. Obviously, in the absence of a control program, returns are not being maximized if a grower is selling his grapes in one market for less than he might receive in another since income could be increased by shifting his grapes to a market where they would bring higher returns. These shifts would, of course, affect prices when done in sufficient volume, which would tend to make the returns in the two

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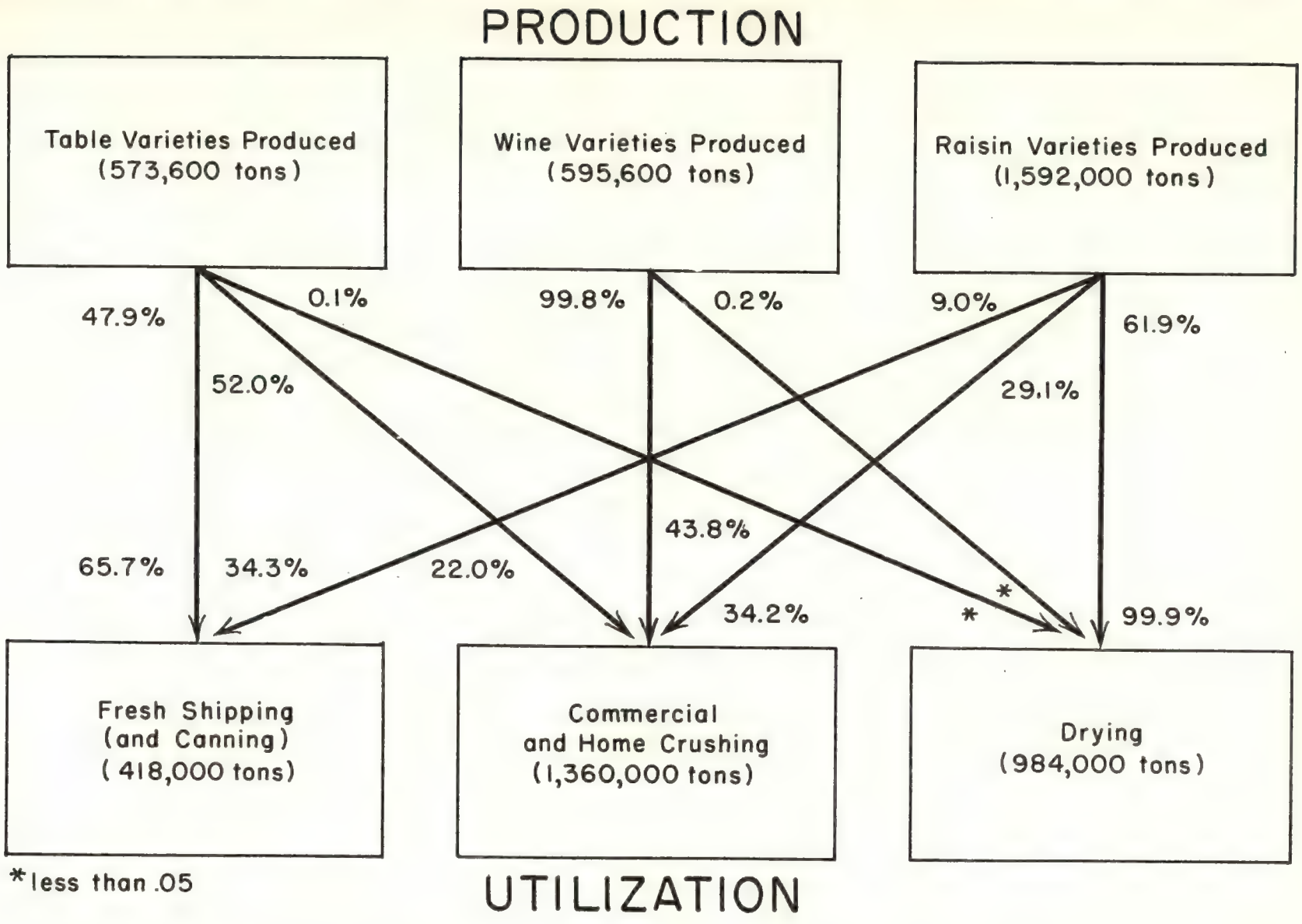

Fig. 2.—California Grapes, 1945–49 Average. Production and Utilization by Varietal Class. Utilization by Percentages of Each Varietal Class, and Varietal Composition by Percentages of Each Major Utilization Class.

Source of data: U. S. Crop and Livestock Reporting Service, Annual Crop Reports.

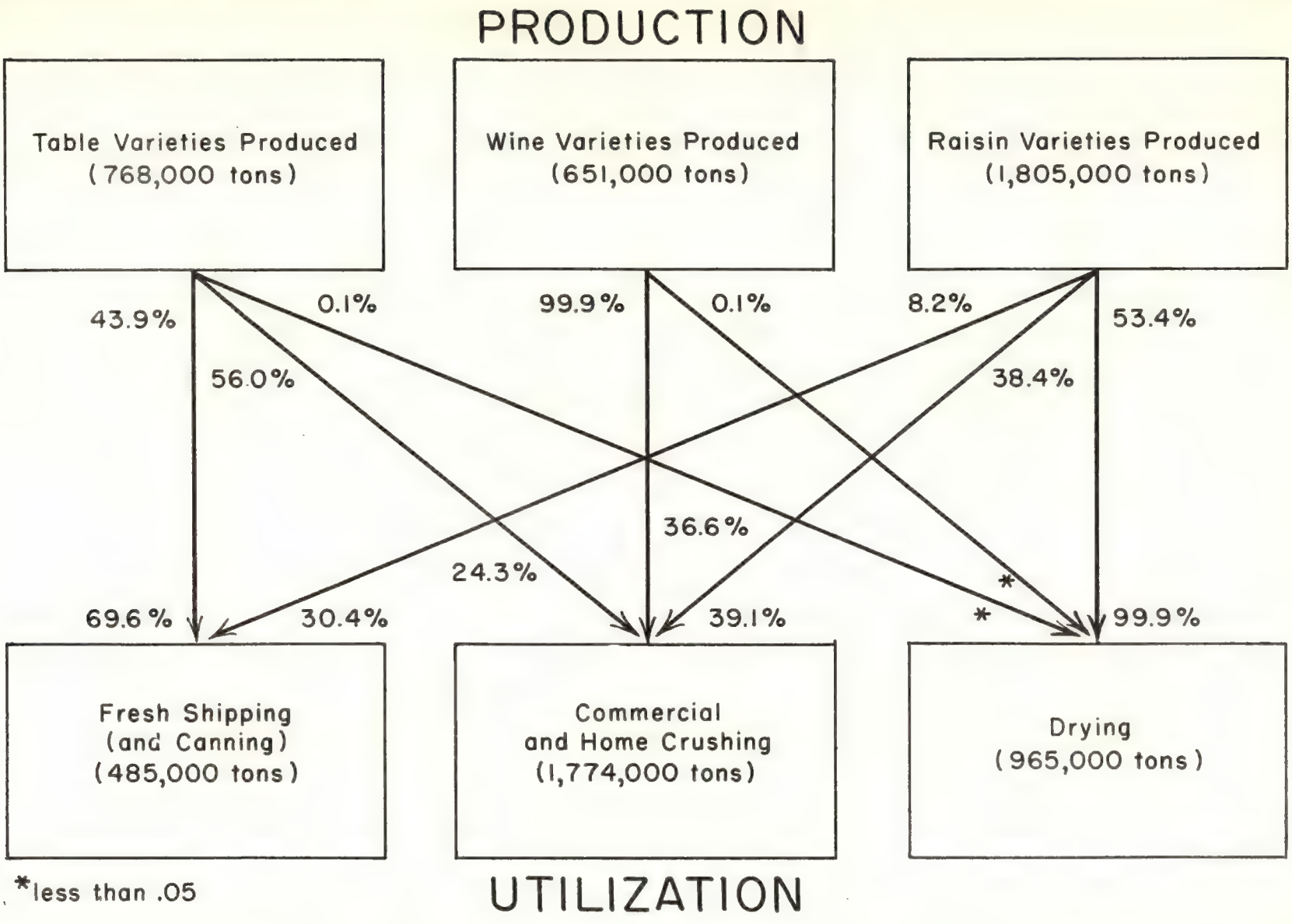

Fig. 3.—California Grapes, 1951. Production and Utilization by Varietal Class. Utilization by Percentages of Each Varietal Class and Varietal Composition by Percentages of Each Major Utilization Class.

Source of data: U. S. Crop and Livestock Reporting Service, Annual Crop Reports.

markets more nearly equal. So long as returns in any one outlet exceeded returns in any other, a shift to the higher priced markets would be an increase in allocation efficiency. If the crop were perfectly allocated, growers would have no basis for claiming at the end of the season that, if they had known in advance what prices would have been obtained in various markets, they would have marketed differently.

Efficient allocation does not necessarily mean equal prices but means equal returns in all markets since costs of harvest and marketing, not to mention cultivation, differ, and the differences must be taken into consideration. Also, there will be varietal, qualitative, and geographical price differences remaining.

One reason the market structure is inefficient is that it gives the grape grower no guide as to which of the several kinds of markets open to him will give him the best return. The grower often does not have definite price offers from various market outlets to guide him because in many circumstances the price received is not determined until after harvest and delivery have taken place. This is the situation for cooperatives which are important in every segment, for cooperative crushing contracts, and for open price contracts.

Market reports indicating price trends and utilization are not available rapidly enough to let growers or handlers know what markets are being overloaded and what markets have a short supply in time to take advantage of them. Possibly they cannot. Variations in over-all grape production, inventories, and demand complicate the problem of planning a sound utilization pattern. The almost inevitable result of these marketing uncertainties, within the scope of which the grape industry must operate, is a swinging from excessive wine crush in one year to excessive raisin lay the next.

Figures 4 through 7 illustrate the relation between average or "normal" consumption and volume marketed in each sector of the grape industry and in conjunction with Figure 1 on page 13 indicate how faulty allocation can create a sector surplus situation even in a nonsurplus year.

In the record-breaking year of 1946, the wineries paying high grape prices took a disproportionate share of the crop, leaving the fresh table and raisin sectors with fewer grapes than the normal consumption requirement. In the next year, 1947, total grape production was down, but with large inventories of wine on hand, it developed that fresh table and raisin markets were offered more grapes than in the peak production year of 1946. In 1948 the cycle had swung around in part, and there was an overnormal supply of dessert

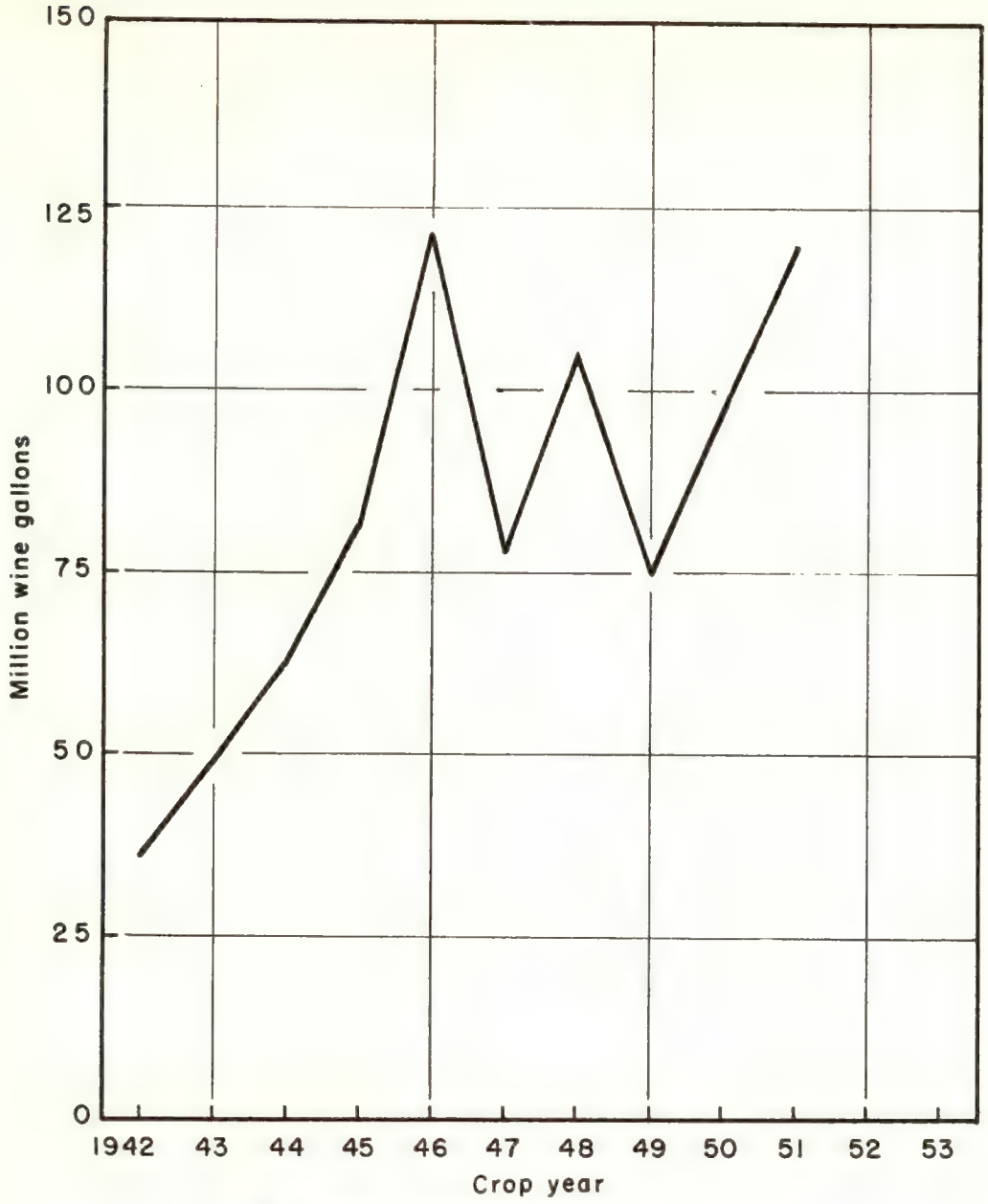

Fig. 4.—California Production of Commercial Dessert Wine.

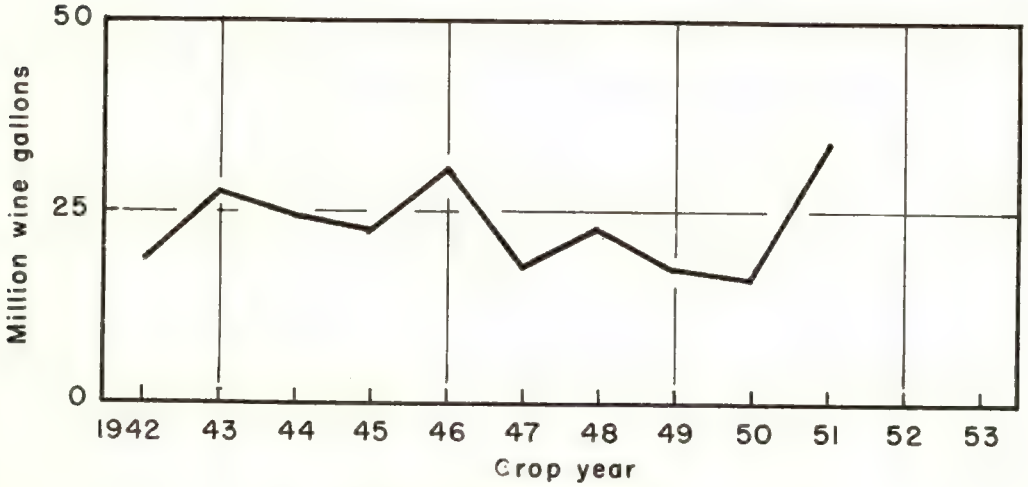

Fig. 5.—California Production of Commercial Table Wine.

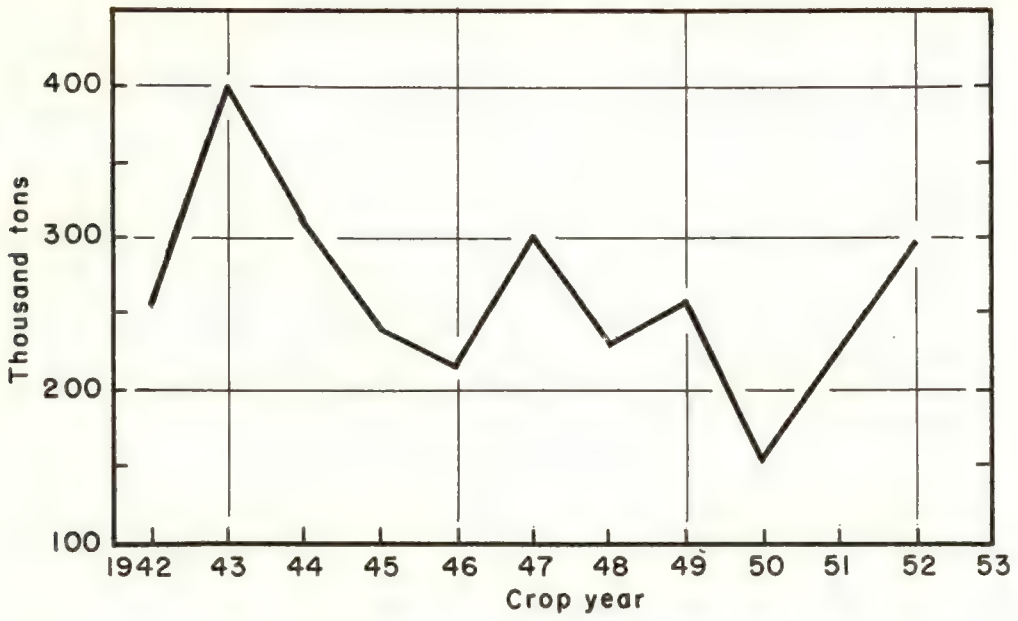

Fig. 6.—California Raisin and Currant Production, Short Tons, Dry Weight.

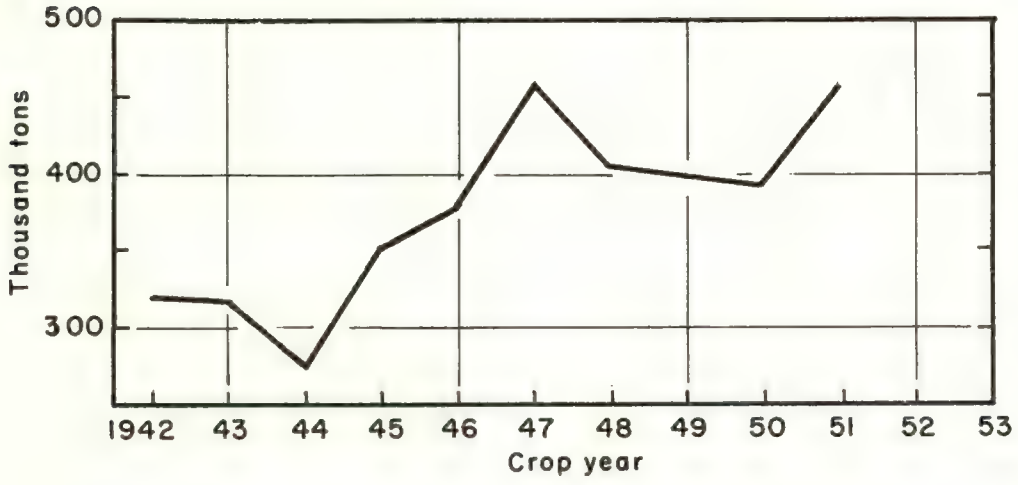

Fig. 7.—Production for Fresh Table Use of California Grapes, All Varieties.

Sources of data: S. W. Shear, "Grape Industry Statistics as of November, 1951," Calif. Agr. Exp. Sta., Giannini Foundation Mimeo. Report No. 125, and U. S. Federal-State Market News Service, "Calif.' Grapes, Raisins, Wine Marketing, 1951." (Mimeo.)

wine. Again in 1949 and 1950, certain markets were oversupplied despite the fact that the grape crop was not sufficiently large to meet all normal requirements.

Stability in Marketing

The supply of grapes in any one sector is more significantly determined by the tendency of growers to shift from one market to another in response to price experience and price expectations than it is by any tendency to change the over-all level of production because of the same cause.

These shifts are important and not very predictable. How extreme they can be illustrated by war years' experience, when unusual restrictions and incentives existed. They disrupt marketing in most major sectors of the grape industry. No single sector succeeds in stabilizing the volume it handles by leaving the brunt of carrying the surplus on the other sectors. This is illustrated by Figures 4 through 7. Statistically, in the period 1934 to 1949 (excluding the war years), the number of tons of raisins dried deviated from the average in one year out of three by at least 20 per cent. As for raisin grapes crushed, in one year out of three, deviations exceeded 58 per cent. The variation in drying and crushing of raisin grapes exceeds the variations in total production of raisin variety grapes.

It would be reasonable to expect that prices paid in various uses would be a major determinant of utilization. Perhaps they are, but the statement needs interpretation. The prices which can affect utilization are the prices which the grower is receiving or expects when his decision as to where he will sell his crop becomes irrevocable. Naturally, price expectations of processors have an important bearing on what prices they offer growers. The erratic character of grape allocation traces back to the fact that grape growers and processors must make their marketing decision before they know what average returns will be. When marketing through cooperatives, the time between decision making and settling returns to be received is especially long. Having three major outlets aggravates the difficulty. Growers are also affected in their marketing decisions by promptness of payment, labor availability, and willingness to accept grapes at a given time. Some may market through cooperatives as a matter of principle. Harvest costs differ according to use, and cultivation costs differ also. The extra risk of rain involved in drying for raisins is a real cost which growers probably do not ignore.

There is evidence to suggest sound marketing decisions by growers are not really possible under present conditions. According to Table IV, raisin grape

TABLE IV

Where Raisin Variety Grapes Were Sold, 1934-1951; Per Cent Dried and Crushed Separated According to Market Bringing Highest Returns

Crop year	Raisin returns higher		Crushing returns higher	
	Dried	Crushed	Dried	Crushed
	per cent			
1934			74	15
1935	65	24		
1936			79	7
1937			69	19
1938[a]				
1939			75	14
1940	54	33		
1941	55	33		
1946			47	43
1947	72	16		
1948	55	32		
1949	73	14		
1950			47	41
1951[b]	29	52		
Average	58	29	65	23

a/ Omitted--returns equal in each use.

b/ Preliminary.

Sources: Shear, S. W. "Grape Industry Statistics." Appendix C of Giannini Found. Agr. Econ. Mimeo Report No. 107, and "Grape Industry Statistics as of November, 1951." Giannini Found. Agr. Econ. Mimeo. Report No. 125.

TABLE IV

Ubero Ralph Verloby Grasses More Gold, 1750-1752; Pur Corp Period and Crushed Separated Recording to Gelbolt Pressing Highest Returns

Item	Total Ore Crushed		Gold Recovered	
	Short	Pounds	Ounces	Pennyweights
1750				
1751				
1752				
Total				
1753				
1754				
1755				
1756				
1757				
1758				
1759				
1760				
1761				
1762				
1763				
1764				
1765				
Grand Total				

1/ Rounded to nearest ounce.

2/ Incomplete.

growers often fail to choose the outlet which, as it turns out, would provide the best return. According to this table, in those seasons in which returns from drying exceeded returns from crushing, growers actually dried a smaller per cent of the crop than in other years. When returns from crushing were higher, growers actually crushed only 23 per cent of their grapes, but when returns from crushing were lower, they crushed 29 per cent. Regardless of relative harvest and other costs, this behavior is just the opposite of what would bring the best returns for their crop. Because they tend to make their marketing decisions on the basis of such inadequate evidence at last year's prices, carry-over, the statements of individuals, estimates of governmental policies, and their own intuition, growers often do not succeed in guessing which market will bring the best return. However, there is a strong tendency for the bulk of growers to guess the same way. This produces a kind of "herd reaction" which, in itself, can cause the outlet to which the "herd" turns to be oversupplied and therefore to produce lower returns than other outlets. How important such an effect might be is suggested by Table IV.

In view of the difficulties, it is not too surprising that growers do not succeed too well in marketing their crop in the most profitable uses. Their best information concerning returns is inadequate, and they are often influenced by unfounded ideas. Furthermore, that most important factor in determining relative prices, the utilization of the crop, cannot be known until growers make their marketing decisions, and, in turn, growers do not want to make their marketing decisions until they know what the utilization of the crop will be! Because of the element of time between the start of the harvest and the knowledge of utilization, it is open to question whether this situation could ever be adequately corrected by more complete market information service.

With effective, competitive markets throughout the grape industry for each grower, efficient allocation would mean that, at the conclusion of the harvest and marketing of the crop, the returns actually received in the alternatives originally open to him were nearly equal. The market alternatives of individual growers would vary, of course, according to variety, quality, and location. It is not true that an efficient market would assure equal return to all growers, but only to all growers in similar circumstances.

When this situation is not obtained, there must be surplus situations and economic loss in individual sectors, even when actually there may not be an excessive over-all production of grapes and with scarcities arising in other sectors. Where extreme differences in returns result, there may be a marketing

stampede in the opposite direction the next year. The idea that there may be a vicious spiral of sector surpluses and price effects year after year is worth further study. Regardless of whether there is any attempt to remove over-all surplus, marketing allocation efficiency should be improved.

Problems Created by Annual Variations in Production

Volume of grapes produced is to some extent under the control of the grower and is not entirely due to variations in weather conditions, disease control, etc. Besides changing his acreage, the grower can influence yields by changing the particular cultural practices he chooses to follow, and it is possible that he might be contributing to year-to-year variations in production of grapes.

To the extent that his economic expectations influence his cultural practices and efforts to get a high yield from his vineyards, year-to-year variations in production may reflect price movements or price expectations. At best, however, this influence must be appreciably less than with annual crops, especially those grown in areas where shifting from one crop to another is relatively easy.

The significance of this situation is that, while a certain amount of production variation is unavoidable because of natural causes, a certain amount may be man-made. And while we cannot do anything about the weather, a marketing program might be concocted to minimize the influence of the man-made variations.

It would be well worth attempting to minimize production variations. The grape and grape product marketing system is imperfect, and as has been stated, it is doubtful if conditions exist which would permit it ever to do an efficient job of grape allocation. The jobs which the marketing situation does least well are coping with variations in production and the allocating problem produced by having an uncertain sized crop. If there are limits to how much the marketing system can be improved, then it might be a good policy to attempt reducing the fluctuations with which the marketing system cannot easily cope. Even a fairly inefficient marketing system might work satisfactorily in an essentially stable situation.

While little can be done to eliminate the variations and uncertainties caused by weather, there is always the possibility of reducing those which arise from differences in grape growers' cultural practices. Probably the most important determinant of yield under the control of the grower is the pruning and the thinning of bunches, customarily done to improve quality and speed maturity. Pruning is used wherever grapes are grown to limit the number of grapes, while thinning is usually limited to grapes destined for the fresh market. The differences in yield which result from different amounts of pruning

and thinning are important, and although there is little information on the economics of the thinning operation, except with table varieties, it is reasonable to expect the amount of thinning to be affected by economic prospects. We do not know, however, enough of grower psychology to be certain what the effect of a good prospect or a bad prospect will be.

It has been argued that the best viticultural practices call for pruning and thinning vines to a certain volume of bunches per vine, depending on contemplated table, wine, or raisin use. Since 1933, according to expert opinion, the set of bunches on vines nearly always exceeded what good practice would permit to reach maturity, but by a varying amount. If so, perhaps the continued encouragement of year-in year-out good cultural practices would have the effect of reducing the fluctuations in yield to even less than the purely natural fluctuations arising from weather alone since with a very heavy set there would be a heavy thinning and a compensatingly smaller thinning of a light set of buds. Average yield would also be decreased, but average grape quality increased.

Over-all grape production is rather variable, and in some years more grapes are produced than can be marketed with satisfactory returns. Such years as 1946, 1947, 1948, and 1951 are examples of surplus production. The grape industry has not been successful in regulating the volume of grape production to meet the volume of demand. Short-run surpluses, arising out of the inability to tailor production to demand, are one of the main causes of grape marketing difficulties.

The problem of efficient utilization of grapes and the surplus problem are intimately connected with each other. Even without an over-all surplus, surpluses and shortages may be created in particular sectors because of poor allocation of the available crop, and over-all surpluses in turn break down the ability of the market to do an efficient job of allocation.

With a long-run surplus situation as large as we apparently have, it would not be possible to remedy the situations created by short-run excess supplies by carrying over inventory into years of shortage. Averaging out the valleys and the peaks of production will still leave surpluses in excess of what could easily be disposed of in commercial markets on a long-run basis.

Summary

At the present time there is in existence a long-run surplus which creates serious problems when means are not available to handle it. So far federal support for raisins has been reasonably effective. Average returns to grape growers since the war have been reasonably high. Typically, however, year-to-year variations in over-all production far exceed the amount of the over-all

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year variations in over-all production far exceed the amount of the over-all

surplus. A satisfactory marketing situation would require something to compensate for or control these variations in production, even if there were no over-all surplus. And, in addition, sector surpluses can arise as a result of difficult marketing conditions. The reason is basically the difficulty encountered in arriving at a satisfactory division of the crop. The price mechanism does not work well, probably for the reason that anticipations rather than actually received prices influence the division of the crop. How the crop is being misallocated does not become apparent until it is too late to do anything about it.

Probably we do not know enough about the industry and the possible effects of untried solutions to prescribe a remedy at the present time. Taken together, the difficulties of present marketing conditions and the difficulties of remedying these present difficulties make an impressive list. Neither long- nor short-run problems will be easily solved by market improvement plans. In working for a solution, however, the following summary of the underlying causes of present difficulties might be borne in mind:

1. Long-run production is somewhat in excess of what can easily be marketed at prices as high as the average received since World War II.

2. Year-to-year fluctuations in production and demand for grapes and grape products which do not always coincide, sometimes production being more and sometimes less than the market will demand at normal prices. The relative inelasticity of consumption habits tends to aggravate the marketing difficulty.

3. The grape industries have not developed rational techniques for handling the excess production such as storing the excess of some years to permit marketing normal volume in the short ones. Resulting price fluctuations probably discourage storage still further and make it difficult for a firm to develop long-run plans.4/

4. A very fundamental fact in the grape situation is the multiplicity of outlets for most grapes. Shifts in allocation are not only possible but common

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4/ It should be noted that price fluctuations themselves are considered by marketing experts to have a depressing effect on the rate of consumption of a product. Consumers are less likely to develop steady consumption habits, and middlemen are rather reluctant to carry adequate inventories of products on which they seem to be in danger of taking an inventory loss. Price fluctuations complicate their business generally, but at least for fresh grapes they are probably inescapable.

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and are not readily predictable since they are based on uncertain expectations rather than actual market conditions. An outgrowth of this flexibility is the frequent failure of the grape industry to achieve the most useful allocation of its product.

5. Implications of marketing programs are not fully understood. It is sometimes economically sound for an individual to do something as part of an industry-wide plan when it would not be sound for him to do so on his own. Withholding part of the crop from the market is an example. Sometimes it is difficult to see how actions which are foolish when done separately suddenly become sound when done en masse.

6. It is hard for individual growers and packers to know during the course of the season which sector is likely to be oversupplied and which undersupplied. Market information has not developed to the point of producing an adequate running account of the harvest and, of course, grapes do not move into all channels at the same time.

7. Variations in the capacity of markets to buy grapes and grape products, due to changes in national income, competition from other products, and difficulties in foreign markets have caused difficulty in disposing of grapes.

8. There is a wide-felt need for organized programs for improvement in marketing efficiency, merchandising, dealer promotion work, advertising, and quality in all sectors of the grape industry, and many feel it to be essential to a healthy industry.

IV. Analysis of Surplus Removal Proposals

There are good reasons for feeling that the present economic conditions and kinds of market organizations in which grapes and grape products are sold will not produce stable marketing conditions without special remedial action or continued federal assistance. A few basic types of proposals may be discerned among the many remedial programs which have been proposed and tried in the grape industry and other agricultural industries to improve such situations. The differences in basic types arise at least as much from different diagnoses of the ills of the industry and its marketing system as they arise from different ideas as to how to cure any given basic difficulty.

The most popular idea is that there are too many grapes, and the remedy usually suggested is to restrict the volume of grapes sold or to remove the surplus. There are many ways of attempting to achieve this reduction. They all assume that the demand conditions in grape markets are such that a smaller volume of sales will bring a higher total revenue to the producers.

A second type of program often proposed simultaneously with the first suggests that economic uncertainty is the problem because it leads to poor utilization, and the way to better marketing is through steps to improve utilization.

A third type of proposal looks to stimulating demand and market expansion as a remedy.

There are occasional program suggestions which are rather different in character. A proposal which was once important but has not received serious consideration by grape growers for some time is that growers might increase their average returns by acting as an united group when bargaining with buyers. One other type of program, of major importance in other agricultural industries, seeks mainly to improve the efficiency of physical handling of the product through research, new facilities, and technical innovations.

A. Requirements for Programs to Remove the Surplus

Where the possibility exists that restriction of output can increase total revenue, achieving this restriction may still be difficult. A successful surplus control program must satisfy many criteria, and a survey of past control attemptshas shown that is has seldom been possible for a program adequately to meet all the standards for any long period. The four criteria which a successful program must meet are:

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total revenue, achieving this restriction may still be difficult. A success-

ment through research, new facilities, and technical innovations.

There are good reasons for feeling that the present economic conditions and kinds of market organizations in which grapes and grape products are sold will not produce stable marketing conditions without special removal action by the grape industry and other agricultural industries to improve such situations. The differences in basic types arise at least as much from different diagnoses of the ills of the industry and its marketing system as they arise from different ideas as to how to cure any given basic difficulty.

The most popular idea is that there are too many grapes, and the remedy usually suggested is to restrict the volume of grapes sold or to remove the surplus. There are many ways of attempting to achieve this reduction. They all assume that the demand conditions in grape markets are such that a smaller volume of sales will bring a higher total revenue to the producers.

A second type of program often proposed simultaneously with the first suggests that economic uncertainty is the problem because it leads to poor utilization, and the way to better marketing is through steps to improve the situation.

A third type of proposal looks to stimulating demand and market expansion as a remedy.

There are occasional program suggestions which are rather different in character. A proposal which was once important but has not received serious [illegible] by grape growers for some time is that growers might increase

1. Economic Feasibility (both short- and long-run)
2. Administrative Practicability
3. Legal Soundness
4. Grower, Handler, and General Public Acceptability

Economic Feasibility

The most important aspect of economic feasibility is whether or not the demand for the product being controlled and the quantity normally supplied are such that restriction of output or sales will increase the total revenue which can be obtained from the sale of that product. Unless they are, restriction is not a sound objective for a program. To stress this all-important point, we here state the basic principle behind restriction of marketing.

That the price received for a commodity depends on the volume offered for sale is well understood. Volume is not, of course, the only factor which changes prices, but where there is an open market, in the normal course of events short-run fluctuations in price are more commonly attributable to variations in volume sold than to any other factor.

The extent to which an increase in quantity offered for sale will affect price depends on how consumers react, and this reaction differs according to the product and the circumstances. A 10 per cent increase in grape shipments will not necessarily produce the same proportionate price effect as a 10 per cent increase in peach shipments, nor will a 10 per cent increase have the same price effect at all times of the year or in different years.

High prices do not necessarily mean maximum revenue for an industry nor does large volume always mean high profits. Total revenue is average price times volume, and a large volume at a low price may bring either more or less revenue than a small volume at a high price. This can be illustrated quite simply. Suppose one or the other of the two price-quantity (demand curves) relationships shown in Figure 8 applied to the wine market.

For different quantities offered for sale, total revenue received with each of the two different price-volume relationships would change with quantity sold as shown in Figure 9.

The curves show that too much or too little offered for sale will return a total revenue smaller than maximum possible. Therefore, it is very important to know what the demand curve is if revenue is to be maximized.

It follows then that, in a program restricting marketing, the most important economic qualification is that the demand response be such that decreasing supply will usually increase total returns. This condition will be met if

The most important aspect of economic feasibility is whether or not the demand for the product being contracted and the quantity demanded/supplied; such that construction of output or sales will increase the total revenue which can be obtained from the sale of that product. Unless they are, construction is not a sound objective for a program. In stress this self-important point, we here state the basic principle behind restriction of production.

That the price received for a commodity depends on the volume offered for sale is well understood. Volume is not, of course, the only factor which changes prices, but where there is an open market, in the normal course of events short-run fluctuations in price are more commonly attributable to variations in volume sold than to any other factor.

The extent to which an increase in quantity offered for sale will affect price depends on the consumers' need, and this relation differs according to the product and the circumstances. A 10 per cent increase in grape shipments will not necessarily produce the same proportionate price effect as a 10 per cent increase in peach shipments; nor will a 10 per cent increase in peach shipments at all times of the year or in different years.

High prices do not necessarily mean an large revenue for an industry nor does large volume always mean high profits. Total revenue is average price times volume, and a large volume at a low price may result in more or less revenue than a small volume at a high price. This can be illustrated quite simply. Suppose one or the other of the two price-quantity (demand curves) relationships shown in Figure 5 applied to the wine market.

For different quantities offered for sale, total revenue received with each of the two different price-volume relationships would change with quantity sold as shown in Figure 6.

The curves show that too much or too little offered for sale will yield a total revenue smaller than maximum possible. Therefore, it is very important to know that the demand curve to be revenue is to be maximized.

It follows then that, in a program stimulating marketing, the most important economic qualification is that the demand responses be such that increasing supply will actually increase total returns. This condition will be met if

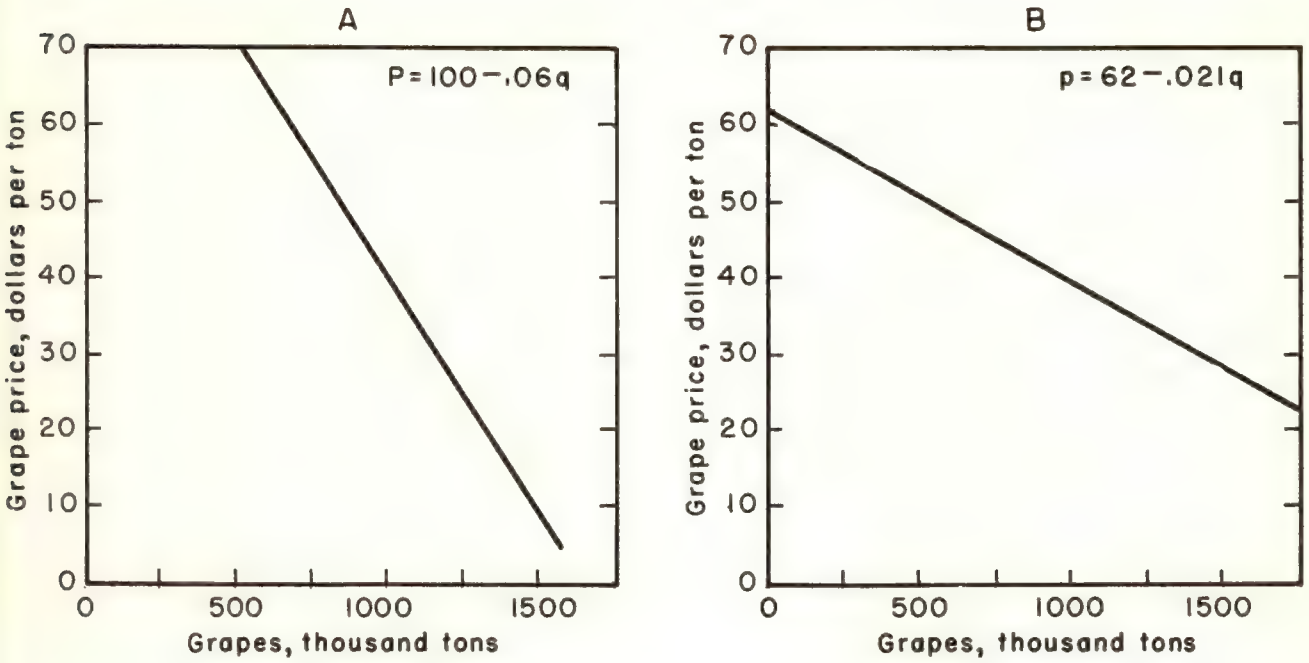

Fig. 8.—Two Hypothetical Relationships between Quantity of Grapes Offered for Sale and Price Received.

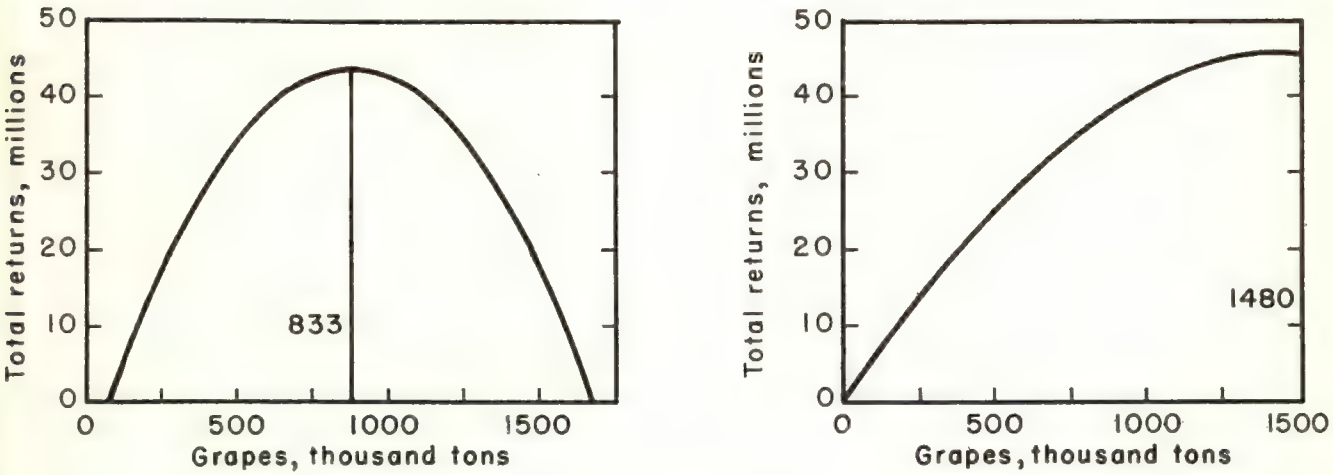

Fig. 9.—Relationships between Quantity of Grapes Offered for Sale and Total Revenue Received, Assuming the Price-Quantity Relationships of Fig. 8.

people do not greatly decrease their use of grapes when the price goes up and if there are no alternative supply sources to which they can turn.

It goes without saying that to be economically feasible a program must be able to discover some way of restricting the quantity of a product marketed, whether this is done by reducing production, by surplus set-asides, by marketing quotas, or some other way. The means of restriction must meet other criteria of legality, administrative feasibility, and acceptability.

Economic feasibility depends on other conditions, too. First, to accomplish an increase in returns by restriction, a program must have substantially complete control over the supply of a product available to the market which it is to control. If control is incomplete, others will supply what the control group might withhold, reaping considerable benefits, while the control group, withholding supplies, might lose rather than gain by their action.

The market which a grape industry program would attempt to control would be the entire United States market for wine, raisins, and fresh grapes. It would be able to control this market because production is concentrated in the state of California, and competition from fresh grapes produced in other states, South American imports, wine from other states and foreign countries does not affect California's ability substantially to control the market price of its own product. (Raisin imports are perhaps conceivable, also.)

One of the important long-run limitations on a market control program is that the longer the program has been in operation, the more likely external competition is likely to be built up. If there were substantial numbers of grape producers outside of California, only a nation-wide control program could be successful in raising the rate of returns. There is always a possibility of benefiting by someone else's restriction. For this reason a voluntary program will not succeed; inevitably, a large number of growers find it profitable not to submit to control if they can avoid it. Under the stimulus of high prices resulting from control, imports tend to increase, and new areas outside the zone of control come into production.

Although it may be sound to store short-run surpluses of excess production years for use in years of short supply, no program is economically feasible which does not provide for the permanent removal of a long-run surplus. It must be destroyed, diverted to some noncompeting use, or stored under such restrictions that buyers will not treat it as part of the potential supply. However, one of the serious dangers which many programs have encountered is that often control boards are unwilling to recognize and destroy the long-run surplus but continue to treat it as if it were a short-run surplus.

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Feasible programs require pronouncement of the specific actions of the control board before the time of harvest. These actions must depend on crop reports and other advance information. Good crop and utilization estimates are essential to the operation of a program, and the more accurate they are, the better the control board can approximate the volume of sales which will maximize industry returns. However, we know that estimates will sometimes be off, and the programs must be able to overcome the inconvenience of such errors. Program success depends on sufficient flexibility to accommodate errors in judgment.

The program must be such that it is possible for the burdens and benefits to be shared on an equitable basis. This requirement is as much a matter of grower acceptability as it is economic feasibility. As an illustration of the difficulty that is sometimes encountered in meeting this requirement, it is noteworthy that in control programs quality standards, or minimum fruit sizes, often have an "escape clause" to prevent undue hardship on the part of those, the majority of whose produce fails to meet the standards. The impact of any standards varies from one grower to another, often for reasons which the grower can only imperfectly control.

A program which has been successful for a few years may fail in the long run if its operation causes growers to increase their productive capacity to any substantial degree, and thereby increase the surplus. Although any program which makes the grape industry more profitable and attractive than alternative opportunities will tend to cause expanded production in the long run, some provisions are especially likely to be dangerous as, for example, establishing marketing quotas on the basis of acreage which gives an added incentive to plant more acres. Even successful trade promotion programs are of questionable long-run benefit since, if they are successful, they also encourage in-movement of new growers and producers and expanded production from the old.

Administrative Practicability

Administrative practicability provides many stumbling blocks, some of which also are related to the problem of economic feasibility. In a workable restriction program, there must be means for handling several administrative problems:

1. There must be means of auditing records and checking compliance with the terms of the program so that evasion or noncompliance cannot go undetected.

2. The program must be able to impose penalties sufficiently severe to prevent nearly all noncompliance.

3. It must be possible for a managerial staff to administer the program by following a set of specific and understandable rules and regulations established by a control board.

4. Rules and regulations must be fair and equitable, treating all alike.

5. Administrative costs must be reasonable and the program operable with a reasonable amount of clerical work, inspection, etc.

6. The program must not impose too much regimentation or interfere excessively with normal business operations.

7. The program cannot be overly dependent on the accuracy of crop and other advance estimates unless special estimates can be made as in cling peaches.

8. The program must be flexible enough not to break down in unexpected or unusual situations.

9. The program should not interfere with the process of dynamic change and improvement in methods of production and marketing which every industry undergoes.

Legal Soundness

Legal soundness depends on adherence to simple basic principles of the law and also compliance with many legalistic and less easily understood details. Legal soundness means first of all that a program must operate under the provisions of one of the state or federal marketing laws; otherwise, the kinds of control and agreement which the programs contemplate are likely to be in violation of other federal or state laws. Also, unless operated under one of the special marketing laws, surplus control programs are not likely to be administratively practicable since these laws provide the only means for both enforcing a control program on an entire industry and effectively insuring continued compliance by those who agree to the program. High lights among the requirements of legal soundness are:

1. The marketing order (or agreement) must fully meet the provisions of the laws and constitutions of the state and federal government, both in the manner in which the marketing order is drawn and in the administration of the program.

2. The order must be so drawn and the program so administered that injunctions and stay orders can be disposed of without unduly delaying or rendering inoperative any significant part of the program or excluding any persons whose inclusion is essential to the success of the program.

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3. Due process of law must be provided for with special care in every situation where private rights are affected in some unusual way, such as where the dissenting minority in a marketing program is compelled to adhere to the will of the majority.

4. All those regulated by a program must have a voice in its operation and, when the program is being considered, must be given an opportunity in an open hearing to make their interests and position known and to have them taken into account.

5. The program must be demonstrated to contribute to the public good, to be consistent with the stated objectives of the basic law, and to be a legitimate use of the power of the state to regulate private citizens in such a way as to further the public welfare.

6. The program must be nondiscriminatory and must treat all in the program according to the same rules and regulations.

7. The program cannot be retroactive in character.

8. The program must provide for supervision and control by the public officials who administer the laws under which the program is operated.

Public Acceptability

Programs which do not meet the criteria of economic feasibility, administrative practicability, or perhaps even legal soundness might still be put into effect and operated briefly if they met the one criterion of industry acceptability. On the other hand, a program which met every other criterion perfectly and was not acceptable to growers and handlers would never even be put into effect.

A program must regulate and regiment if it is to do anything that justifies the cost and trouble of a formal program organization. Regulation and regimentation will be acceptable so long as those regulated think the benefits derived outweigh the disagreeable features of regulation. Programs are originated in the hope that they will. The belief that they do keeps them going. Therefore, the success of a market control program has a great deal to do with its being acceptable.

There is no system which can determine precisely if a given program will or will not be acceptable. Chance circumstances or the influence of key personalities might make acceptable a program which otherwise would be unacceptable, or the other way around.

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A program probably will not exist long if the principles and manner of its operation are obnoxious to any large portion of the general public, the state legislature, the United States Congress, or the persons directly involved in the program. A program cannot violate the principles of public policy followed by those public officials under whose general supervision the program must operate. A program will be endangered if it is opposed by even a small minority with enough common interest to permit it to form an organized opposition.

A program cannot be successful if it puts too great a strain on the honesty of those regulated. It will not continue to be acceptable if some persons are permitted to gain substantially and obviously by remaining outside the program, or to violate regulations with impunity. It will create serious difficulties if those who deal with program participants become inconvenienced and oppose the program or if trade channels are seriously disrupted.

B. Types of Surplus Removal Programs Which Have Been Suggested

Although a large number of different surplus removal proposals have been made, there are only a few major types. The plans which have been advanced for controlling surplus or limiting quantity marketed include the following:

1. Plans to limit the acreage of grape vines by preventing further planting and/or vine pulling. Compulsory vine pulling, voluntary vine pulling, sometimes to be encouraged by incentive payments, have both been proposed.

2. Plans to reduce or limit production without limiting the acreage of vines. Proposals for totally removing the grapes of a certain percentage of vines, similar in nature to the peach-thinning program, have been suggested. It has been suggested that crops be reduced by over-all thinning brought about either by compulsory regulation, incentive payments, or quality standards which could be met in an average year only with considerable thinning.

3. Plans limiting quantity harvested. Limitations might take the form of:

   a. Harvesting quotas, all grapes in excess of the quota to be left in the field.
   b. Compulsory or voluntary dropping, prior to or at harvest time, perhaps accompanied by payments.
   c. Enforcement of stringent quality standards.
   d. Compulsory set-aside of a percentage of harvest into reserve and surplus pools.

4. Programs establishing floor prices which, in effect, limit volume to that which can be sold at the floor price.

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B. Types of Possible Natural Program Limitations

Although a large number of different surplus removal proposals have been made, there are only a few major types. The plans which have been proposed for controlling acreage or limiting quantity marketed include the following:

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3. Plans limiting quantity harvested. Limitations might take the form of:

a. Harvesting quotas, all grapes in excess of the quota to be lift in the field.

b. Compulsory or voluntary "crushing" prior to or at harvest time, acreage accompanied by payments.

c. Deferment of starting to lift sticks.

d. Compulsory withdrawal of a percentage of harvest into reserve pools.

4. Programs establishing floor prices which, in effect, limit volume to that which can be sold at the floor price.

5. Programs to remove from commercial channels grape products already produced, either through storage operations or through buying up surpluses.

Acreage Limitation Programs

It is not legally possible, at the present time, to prevent anyone who wishes to plant grapes from doing so, and there is a considerable amount of land suitable for grape culture now used for other crops. Anything which makes grape production more profitable will create incentives to increase grape acreage and production programs for advertising promotion just as much as vine removal programs. The possibility of expanded production is a limitation to the long-run success of any program.

State law forbids the destruction under a market program of vines whose yield is above the state average. Vine removal programs can, therefore, remove only the poor yielding vineyards which are either the unprofitable and diseased ones which would likely be removed anyway, or the hillside wine grape vineyards. No way has ever been found to limit payments for the removal of vines only to those which would not otherwise have been removed. Under any program making payments, this disadvantage would mean some and perhaps considerable unproductive outlay and an unfair advantage to growers with poor vineyards.

It has been suggested that bonuses might be paid to encourage removal of vines, the fund to come from assessments on grape growers. However, nothing is known about what sized bonus would be required to produce a substantial pulling of high-yield vines.

There is no reason to believe that an agreement not to replant by those who did pull vines would be of any use. Many growers would pull no vines and would be free to expand. Those not previously grape growers would be free to plant vines.

Acreage limitations are usually held to be not legally feasible and probably meet none of the other criteria of successful programs. Vine-pulling programs which would be legally feasible are not likely to be economically sound. Compulsory vine pulling might be legally feasible and economically sound but would be almost impossible to administer in a fair manner and would be generally unacceptable.

Growers with widespread interests may take a somewhat different view of solutions to the surplus than growers who restrict themselves to grape production or processors of grapes who do not have other agricultural interests. Attempts to limit grape production by means which persuade growers to grow

something else may be attempts to shift surplus from one agricultural industry to another. Since those California farmers producing the alternative crops may think the shift to be no gain for them at all, such growers may benefit by considering surplus problems in a wider context than the grape industry alone. Growers and handlers who find it easy to find profitable alternatives to grapes are, of course, less vitally concerned than those who have no suitable opportunity to shift their land and equipment to other crops.

Limitations on Production

Acreage allotments and marketing quotas, similar to those which have been applied with fair success in cotton and tobacco, have been suggested for grapes. Growers would be allotted the number of acres on which they could grow or harvest their crop. Often marketing agreements and acreage agreements are used jointly. Growers could be given a marketing quota to accommodate normal yield from their allotted acreage and denied permission to market anything in excess of the quota.

Programs of this sort have been continued in the cotton and tobacco industry because the law makes them a prerequisite for receiving substantial financial support from the federal government. Whether they would be continued without that support, or with the kind of support that the government is likely to give the grape industry, is impossible to tell.

Because grape vines are a perennial, whereas cotton and tobacco are annual crops, a program designed for grapes would have to be more complicated and would encounter more severe administrative problems. The regulation of acreage would be less flexible. Grape growers would be unable to use the acres restricted from production of the controlled crop for something else as can cotton and tobacco growers.

Even where this plan has worked best, for cotton and tobacco, there are undesirable features. Where there are acreage allotments, there may be a tendency toward intensive cultivation and higher than average yields on the allotted acreage, thereby placing a large burden of sales restriction on the marketing quota part of the program.

Acreage allotments tend to stifle shifts to other crops in response to changing conditions. They may provide extra incentives for discovering ways to get high yields per acre. Allotments are made on the basis of acreage in the crop at some given time in the past. If quotas were based on acreage in grapes, there would be a tendency to freeze the pattern of land use so as to encourage continuously producing surplus grapes. Also, if experience in other fields

would apply here, in time such a system would develop to a point where land would be sold, not for its value in production but for the marketing quota rights that go with it. This has happened primarily in tobacco raising areas.

Production could be reduced by total stripping of a certain percentage of all vines at some early date. This system certainly would limit production in almost the same proportion as vines were stripped and should achieve the desired economic result. It would be legal and has been applied to peaches. A grower might, for example, strip every fifth vine or every fifth row, and here checking at a glance by untrained person would be simple. If a grower were to strip one plot equal to 20 per cent of his vineyards, he would save on cultivation, harvest, spray, and other costs; but it would be necessary to survey, measure, and determine ownership of all acreage and stripped acreage. Spot checking would not be so readily possible as with alternate vine or row stripping.

Such programs would require no other funds than administrative costs if done on a compulsory basis. If attempted as a system of voluntary stripping encouraged by incentive payments, the results would be less certain, and probably the cost would be so high as to require a substantial stabilization fund. Also, while under either voluntary or compulsory programs different standards for different grape varieties would be highly desirable, it might easily prove to be impossible to devise a set of standards which would adequately satisfy equity considerations.

An argument has been advanced that grape growers are gamblers at heart, and a reasonable though small possibility of high returns would make them reluctant to sell unripe grapes at a low figure. If the argument is correct, it might not be possible for a voluntary green dropping program to buy unripe grapes at any saving, and perhaps it would not be at all possible to remove a surplus early in the season by a voluntary program.

If a surplus purchase program were not to buy grapes until the harvest time and then leave them on the vines, there would be the additional complication that it would be hard to check compliance and prevent bootlegging.

From the economic standpoint, it would be preferable to require pruning and thinning of all grapes rather than complete stripping of a certain percentage. Such practices could improve the quality of grapes, raisins, and wine as well as reduce the volume harvested. However, it would be extremely difficult, if not impossible, to establish, administer, or check compliance with any adequate standards, and only if sound standards were established would legal

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objections and the need for grower acceptability be satisfied. The problem of standards would be less severe in a voluntary program under which a bonus was paid for restriction, but other problems would be worse.

Quality Limitations on Harvest

Because the quality standards which have been proposed recently have for one of their prime objectives the establishment of incentives to prune and thin, thereby to reduce production, they might also be considered a production limitation program. Quality and quantity are linked. The main criteria of grape quality are color, skin defects and disease damage, ripeness, and for crushing especially sugar and acid content. Aside from defects, standards have been established mainly in terms of sugar although the ratio of sugar-to-acid has received considerable recent discussion. Both are believed to be useful measures of the quality of fresh grapes, raisins, and wine. The more heavily vines are loaded with grapes, up to a point, the lower they will be in their content of acid in relation to their sugar. Therefore, to meet strict standards growers must prune their grapes more heavily which usually will reduce over-all production.

Other quality standards are predicated on the theory that by setting certain minimum standards a certain portion of mature grapes can be eliminated and the volume marketed can be regulated by varying the quality standards. Where this type of restriction is contemplated, quality standards which cannot easily be circumvented by improved cultural practices are preferable since increased production of high-quality grapes would negate the contemplated control. Such standards are legal if it can be shown that they are reasonable and necessary, but it is doubtful that programs whose legal justification is the maintenance of quality can permit their quality standards to be manipulated extensively for the ulterior motive of volume regulation. Volume regulation must stand on its own feet.

Quality controls are popular in principle, but in practice they are likely to bear very inequitably on different growers; often, in other agricultural industries, they have become unpopular when put into practice. In grapes there are many different varieties, districts, and growing conditions. Because grapes are not a homogeneous commodity, the same standards cannot apply for all, and different standards, even where justified, are likely to be very unpopular.

The popularity of grape quality standards in actual practice is perhaps indicated by experience with those regulations which the grape industry already has. Standards exist for fresh grapes which fulfill a recognized need, and they are generally supported by growers and shippers. However, these standards have been lenient, and there has been little demand for strengthening them, especially when good returns could be made from shipping even grapes which did not meet existing standards of maturity. The moderateness of the law seems to reflect the attitude of growers and shippers because the standards exist at the request of and are continued through the support of these groups.

Likewise, although not defining what they are, the law requires that only sound ripe grapes be crushed into wine.5/ There has been so little insistence on the enforcement of this provision that the somewhat unsatisfactory definitions in the law have never been improved upon by either administrative or legal act--a necessary step for stringent enforcement. Here, too, public policy has reflected the desires of interested producers. It must be concluded then that there is evidence that growers and processors like to have quality standards available but less evidence of enthusiasm for their rigorous enforcement

Quality standards can be devised that are economically sound from the restriction point of view, and there are other arguments for quality improvement also. Further, standards can be legally sound and administratively practicable if equity considerations are not thought too important. But they are not likely to be popular in practice.

Other Limitations on Harvest

Marketing quotas are an old device. The main consideration in setting a quota is the base used for setting the quotas. Three of the most popular are acreage in production, volume harvested in some past year or years, and volume actually delivered in the current year. The first two depend on accurate records to set equitable quotas. With acreage-based quotas, there are a number of special problems such as the treatment of unusually poor or good acreage to which it might not be fair to assign the same quota as typical acreage. Since absolute exclusion is not legally possible, there must be a way of providing marketing quotas for newcomers.

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5/ See United States Internal Revenue Code, Section 304.4, and California Administrative Code.

Output restriction is possible with such a program. But while there may be short-run economic gains, such controls are likely to run into difficulties in the long run. Historically based quotas may freeze production into a pattern of vested rights and interests which foster and perpetuate inefficient production and marketing. Such programs are administratively practicable although the administrative costs are high. They are legal and have been accepted in some other industries. It may be possible to permit the use in other ways of the land and labor not needed to raise the quota quantity.

Quotas based on volume marketed in the current year are known as set-aside percentages, or prorates. The grower must harvest everything, a certain portion of which is set aside for the account of a marketing board which may later release it to the regular market or divert it into by-products or non-competitive markets, usually at substantially lower prices. Any returns from sale of this surplus are paid to the grower. This type of program is illustrated by the federal raisin program.

Where any restriction would be sound, these types of programs will be economically sound at least in the short run. The administration is fairly well understood and with the cooperation of handlers is relatively easy since similar programs have existed in many agricultural industries. When drawn up with the care and the provisions which administering agencies are led by experience to insist upon, the programs stand up in court. The chief difficulty in connection with such programs is that they are not widely popular with growers.

The acceptability of set-aside programs is most questionable when the group to be regulated includes many diverse economic interests. This is a very serious problem in the grape industry. The various sectors of the grape industry are not independent, and the diversity of interests is extreme. It is not possible to resolve the problem by restricting the operation of the program to a small group since the various sectors of the grape industry are economically related in a way which means that those in one group must take into account what those in another group are doing. With market control programs in operation, the importance of market interrelationships is intensified.

If programs can remain operative for a long time, complications arising out of the regulation itself may need to be coped with. One of the difficulties of all quota plans is that they tend to maintain the surplus in production. Quotas based on acreage give growers a reason not to reduce their acreage since then they would reduce their quota. Prorate programs mean that, to get the largest possible marketable tonnage, a grower must harvest as many grapes as possible.

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C. The Dessert Wine Control Plan

The dessert wine control plan which received much consideration early in 1952 was a set-aside plan for grapes made into dessert wine, brandy, and concentrate under which the products themselves would be set aside in reserve and surplus pools. Table wine and grapes made into table wine would be exempt.

Grape growers would hold the equity in the reserve and surplus pools and would receive no compensation for those grapes until the pools were sold. Compensation from the eventual disposition of grapes delivered to the pools would go to growers, the amount determined by standards which would insure that a grower who delivered high-quality grapes would receive a greater per-ton return from the pool than one who delivered low-quality grapes. A minimum standard for crushing would be incorporated into the plan, which in later years might be used to exclude some grapes from crushing outlets.

A control board would handle the disposition of the reserve and surplus pools and make sales to vintners or others when it might consider that such sales could be made with benefit to the industry. Reserve tonnage might be withheld or transferred to surplus tonnage. Surplus tonnage might be made into by-products, destroyed, or sold noncompetitively. While the proposal at one time stated that surplus tonnage might be transferred to reserve tonnage, this would be contrary to the existing law which provides that once tonnage is declared surplus it can never be sold in regular commercial channels, even if the only alternative is to throw it away.6/

It is contemplated that growers who delivered to wineries making only table wine would receive payment for 100 per cent of their grapes. Those delivering to other wineries would receive payment for only the free tonnage percentage. Where a winery made both table and dessert wine, some sort of a division would be made by means not spelt out in the proposal. The wineries would be compensated for the cost of handling of the reserve and surplus pools.

The program would be administered by a board of growers, grower members of cooperative wineries, and vintners. The only assessments would be those necessary to pay administration costs--perhaps as much as 25 cents per ton of grapes.

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6/ California Agricultural Code, 1300.15 (b) 6, "The contents of any surplus pool shall not be marketed by the board in any form which would compete directly with that portion of the commodity which is marketed in regular channels of trade."

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Commentary on the Dessert Wine Control Plan

Although the program is stated to be a set-aside of grapes delivered for the purpose of making dessert wine, it would in practice have to be a set-aside of the wine itself because it would be inconvenient for growers and vintners actually to make a physical separation of every load into free tonnage, reserve tonnage, and surplus tonnage and then to crush, store, filter, and process each separately. Probably all grapes would be crushed, all wine stored together, and the separation of control board-owned and vintner-owned gallonage would be a bookkeeping transaction.

Unless there were some special provisions, a vintner would be free to decide which of the wine he made he would call his own property and which would be the reserve and surplus gallonage. He could choose the best wine as being his own property and turn the rest over to the board. This would be difficult to prevent.

A set-aside program could be developed with the help of the state Bureau of Markets which would be perfectly legal and administratively feasible. Such a program could reduce the volume of dessert wine available for free markets. This reduction would come about in two ways. First, a set-aside percentage would withhold from the market a portion of all dessert wine made. Second, because there would be a set-aside from which growers would receive no immediate return and possibly no return at all, growers would be led to prefer outlets other than dessert wineries and less dessert wine would be made. If some of that surplus actually were destroyed, it would also reduce the overall grape surplus, but in addition the Dessert Wine Control Plan would have the effect of pushing the surplus into other markets. While the first effect would benefit the entire industry, the second effect would tend to shift the surplus burden from the dessert wine segment to others in the grape industry.

All the growers who deliver to dessert wine-making vintners have alternative markets which would seem more attractive if the dessert wine control program were in effect. There might be some increased fresh shipment of juice grapes. Where vintners owned their own vineyards, they would be free to make only table wine from what they owned and dessert wine from what they bought. Cooperative members might insist that their wineries make only table wine. The net effect would probably be an increased supply of table wine, and growers probably would receive for grapes delivered to wineries making table wine substantially lower prices than they would receive for free tonnage sales to dessert wine wineries.

Although the problem is confused by the fact that large makers of dessert wine usually make a large volume of table wine also, a set-aside order organized by table wine vintners for table wine alone might serve to protect them against a great oversupply arising from such a dessert wine program. For example, they might set quality standards for grapes for crushing into table wine. It is doubtful, however, that there would be a legal basis for standards high enough to prevent use in table wine of valley-grown wine variety grapes, even of varieties most suited for dessert wine.

A winery set-aside program would give Thompson grape growers an extra incentive to make raisins or to ship fresh Thompsons. The operation of a quality standard would strengthen the effect. Similarly, growers of table grapes would look for noncrushing markets which at this time could only be fresh shipments. Emperor and Tokay grape growers might ship more or put more in storage. Tokay growers might possibly protect themselves by a limitation of shipments under the terms of their federal marketing order.

The economic soundness of the dessert wine control plan, so far as the dessert wine people themselves are concerned, depends on how much it can enhance prices by the restriction of production and on whether it can find a home for the reserve and surplus.

It is not absolutely certain that setting aside a part of a crush would greatly enhance dessert wine prices under present conditions. Experience with other market control indicates that merely holding the surplus in a reserve pool, which may or may not reappear on the regular market, does not accomplish very much. The trade knows that the surplus is there, and in pursuing inventory and purchasing policies, it acts as if it were part of the supply.

Only if a reserve pool is definitely and irrevocably removed from the market, or funds exist to buy it up, is a set-aside likely to have an upward effect on prices. Under the federal raisin program, there is a provision drawn up with exactly this problem in mind which forbids the sale of reserve tonnage raisins at less than the season average price plus carrying costs at the date of contemplated sale.

Finding a way to remove surplus wine from normal channels is a serious difficulty of the dessert wine control plan. At present, the federal tax must be paid although it has been hoped that it might be abated for wine declared to be unmarketable surplus. There is no noncompeting market for wine as such, nor does brandy seem promising. From time to time, experiments with by-products have been conducted, but none appear promising. Industrial alcohol

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has been investigated many times, and published reports have always been concluded that the price is so low it is not likely to pay the cost of processing grapes. Recent developments in processes of making industrial alcohol from petroleum are reported likely to reduce its price still further.

Experience with other market control programs has indicated that growers will not accept a program unless they get a substantial return from their reserve and surplus tonnage. So far as can be seen, the only unsubsidized way to get any return at all from surplus wine would be to sell part of the reserve tonnage into regular commercial channels, and this, in part, would defeat the purpose of the program.

A set-aside program in wine would have the problem of carrying over inventories from one marketing season into the next. Under the raisin program, one season's raisin crop is almost completely cleared up before the beginning of the next season. This would not be possible in wine. It would be necessary to decide if the old wine reserve pool should be completely disposed of in either regular or surplus markets before the new crushing season began, whether it should have a priority over the new reserve pool, or whether the new reserve pool should merely be added to the old to make one big reserve pool. Because all growers would not have equal equities in new and old reserve pools, it would probably be necessary to close out one pool before any steps were taken to dispose of the next.

It has been suggested that standards of minimum sugar and minimum acid content could be established for grapes for crushing (the sugar-acid idea) in conjunction with a set-aside program. The most significant argument advanced for this kind of standard is that it would reduce the quantity of grapes eligible for crushing and, thereby, succeed in reducing the size of the total crush. It is argued, in addition, that, in their efforts to meet the standard, growers would be obliged to follow cultural practices which would reduce the size of the over-all crop and, incidentally, improve the quality of the grapes and the resulting grape products. It has been urged that such standards be instituted simultaneously with a set-aside program as a way of counteracting those incentives to maintenance or expansion of production which sometimes result from set-aside programs.

A quality program, which might be instituted along with a set-aside program, could also be instituted separately with essentially the same advantages and limitations as if operated in conjunction with a set-aside.

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If the objective of a quality program was to restrict volume produced, it would increase the cost per ton of grapes. If the price of wine and other grape products were increased sufficiently as a result, this restriction would be sound policy. The gain mainly sought would be that resulting from the supply being shorted.

If it were true that increased sales and profits resulted from improved quality and that using grapes of certain sugar-acid ratios was the most economical way of obtaining this improved quality, vintners would probably now be paying premium prices for grapes with those sugar-acid ratios so as to encourage growers to produce them and this without any marketing program. If it would not pay, then the standard could be enforced only by a marketing order and could be justified mainly by the price stimulation resulting from the decreased supply although there might be some concurrent benefit from quality improvement.

D. Quality Standards for the Dessert Wine Industry

Early in 1952, the wine industry discussed standards for grapes for crushing as a way of improving average wine quality and of limiting production. Several arguments for such standards were advanced. One was that improved quality would result and would increase the price at which a given quantity of wine could be sold. A second was that quality standards would tend to stabilize wine prices because, it was maintained, fluctuations in demand were in part a reflection of changes in quality. A third was that quality standards were an effective means of limiting the volume of wine available for sale and that limiting volume would increase both the prices received and total returns from the sale of wine.

Considering these arguments in the order in which they are given, the first two have in common that they are based on the assumptions that consumer tastes and buying habits were affected by wine characteristics. Actually, we know too little about taste preferences and wine buying habits to pass judgment on the validity of the idea. Taste-testing experiments indicate that consumer preferences are highly variable, but depending somewhat on consumer's age, cultural and national background, income, and geographical setting. The results of some tasting experiments suggest that the general public does not recognize any but the extreme quality differences. It seems clear that popular tastes are not the same as those of wine experts and that, to sell more wine, esoteric expert opinion is not necessarily the proper standard for changing wine quality. We do not know very well what changes in wine characteristics

will cause wine to meet with wider public acceptance. Probably, wine sales are stimulated by the availability of a wide variety of sherries, ports, burgundies, etc., as well as by their actual characteristics.

In addition, studies of marketing practices in many fields indicate that most consumer buying is stongly influenced by factors other than the quality of the product, such as advertising and other marketing practices. Modern wine retailing makes it almost impossible for consumers to discover which of the many brands available tastes best to them. Being unable to sample the product, consumers must buy mainly by label, price, appearance, retailers' advice, and any information which comes their way. While wine characteristics might be important factors in determining demand under certain conditions, modern wine retailing does not provide those conditions.

The net effect of taste preferences and buying habits is that the merit of arguments in favor of better quality cannot be judged. We do not know if <u>any</u> changes in wine characteristics will be helpful, and in particular, we do not know <u>what</u> changes should be tested first.

There is no certainty that changes in wine characteristics, which improved sales for a single vintner, would also lead to increased sales for the entire wine industry. Investigation might show that a given vintner's increased sales were the result of shifting from other brands rather than of adding entirely new line consumers. On the other hand, the failure of quality changes to improve sales for a vintner should not be taken as evidence that industry-wide quality programs would not work. The vintner might not have made the right quality changes. It can also be argued that few new wine consumers will become regular customers if they are disappointed in their first purchases, for they will not be inclined to experiment to find the brands they prefer. The proper solution for this dilemma, it is argued, is to make sure that all brands are reasonably good. If this argument is valid, it would imply that an industry-wide quality program might accomplish more than the uncoordinated efforts of individual vintners.

The argument that quality variations create instability implies both that consumers are strongly influenced by quality changes (about which we have said we had little evidence) and that there actually were significant year-to-year changes in quality. If so, quality changes could make prices either more or stable. If there were a tendency for the quality of wine to be such as to stimulate demand in years of large supply, the quality variations would actually have a tendency to stabilize price. Many other factors besides quality have

influenced the demand and price of wine strongly enough to make the effect of quality changes difficult to detect. The volume made and the level of national income are particularly likely to be significant.

The third argument, that quality standards can be used to reduce the quantity of grapes crushed, does not depend on demand stimulation which may result from improved quality but concentrates on the more certain relationship between prices and volume offered for sale. That a portion of the crop or product can be eliminated by failure to meet quality standards is one argument. Another is that not much actually would fail to meet standards but that, growing grapes to meet the standards (or produce a product that would meet them), growers would be obliged to follow cultural practices that would produce smaller crops. There has been some investigation of each point. It appears that no standards for grapes based on defects, presence of disease, or sugar content which treat growers and vintners in a fair manner are likely to eliminate many grapes. Standards based on both the percentage of sugar and the percentage of acid might be more effective. The evidence on this point is incomplete, being derived from data collected mainly for other purposes.

That the enforcement of strict sugar-acid ratio in grapes crushed will substantially reduce the yield of some grape varieties in some areas is supported by technical evidence that the sugar-acid ratio is affected by pruning. The theory behind sugar-acid ratio standards is that, if announced early enough, if the implications were widely understood, and if growers knew what standards of thinning would produce the desired result, then a reduction of total grape yield would result.

To evaluate the merit of the quality-volume arguments, it would first be necessary to know far more about the information on which they are based. This information is partly technical, such as relationships between sugar-acid ratio and cultural practices. With further study, it might very well be discovered that other variables affect the relationship in important ways.

Assumptions are made about the psychological behavior of growers when confronted with a quality standard "ultimatum." Certainly the idea that, because of standards to be applied at harvest time, they would reduce their yield by pruning needs careful examination. Also, we should investigate whether or not it is actually practicable for growers to aim for certain minimums of sugar and acid content. The relationship between a given intensity of pruning and ultimate grape characteristics may be so unpredictable as to make the meeting of standards as much a matter of chance as of intention.

Important administrative and equity problems must be overcome in any program designed to regulate volume by means of quality regulations. One administrative problem is the development of objective quality standards, field application of which would be simple and unassailable. It would be necessary to simplify these standards by concentrating on the objectively measurable features of the grapes or wine, whether these features were the most important for quality or not. The administrative problem of enforcement would be severe because, regardless of the gains which programs might bring for the industry as a whole, there would be strong economic incentives, both for vintners and growers, to violate the quality standards. The more effective the program in raising prices, the stronger would be the incentives to market substandard wine.

Quality standards could be applied to either wine or to grapes for crushing. Each procedure has advantages and disadvantages. If wine, instead of grape, quality standards were to be used, the resulting restriction of sales might leave vintners with costly unsalable wine. Vintners would guard against buying any grapes which could make only poor wine. On the other hand, it would be an advantage that this control, more than a grape quality control, would tend to make sure that only high-quality wine reached the consumer. The strict federal control over wine manufacture would simplify enforcement problems. Testing for quality and examination of records could be carried out in the relative leisure of the postcrushing season.

To apply quality standards to grapes for crushing might prevent use of a few low-grade grapes, but any wine made could be sold regardless of quality. No doubt poor wine can be and is made from good grapes. Vintners would have no unsalable wine, but growers would find themselves saddled with any grapes produced, which did not meet the standards, and with no alternative outlets. Since inspection would be necessary during the crushing season, the time and personnel to enforce these standards would be harder to find than for wine standards applied at the conclusion of the season, and the administrative problems would be multiplied by the shortness of time available for testing and appealing doubtful cases. Whether or not adequate standards would be more or less complex for grapes than for wine is difficult to tell.

The relationship between the date when accurate crop forecasts are on hand and the date when marketing decisions must be made is highly important. It would be very difficult to utilize standards as an effective control device if they must be established well in advance of knowledge of the crop size. This is a criticism particularly against grape standards. Wine standards could be established much later--perhaps even after the conclusion of crushing.

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The relationship between the date when a vineyard crop is sold and the date when marketing restrictions must be made is highly important. It would be very difficult to utilize standards as an effective control device if they must be established well in advance of knowledge of the crop size. This is a criticism particularly against grape standards. Wine standards could be established much later--perhaps even after the completion of crushing.

Fair treatment of all is essential in any marketing program, and it is especially difficult to obtain in a quality control program. Fairness requires that the cost of removing the surplus be proportionate to the benefits which result. It would be unfair if a larger portion of one grower's grapes, or one vintner's wine, than another's were eliminated. Also, costs and benefits must be shared by growers and vintners in a fair manner, an important consideration in the selecting of the kind of quality control, particularly as to whether it is to be applied to wine or to grapes.

It is sometimes argued that a grower or vintner who is affected more adversely than average by a quality program does not deserve any special consideration but that all have the same obligation to meet the standards. But many growers could argue that new and necessarily arbitrary rules deprive them of some of the value of their investment and that, with fair warning, they would have invested otherwise. They could not be blamed for preferring the marketplace judgment of the quality of their grapes and thinking it more fair than standards established by a board. In actual practice, standards bear down very unequally since those in marginal areas, who before were able to sell their produce on the free market for perhaps only slightly less than the average price, may now find themselves unable to meet the new standards. Every industry has such marginal cases.

To sum it up, quality control programs are supported by a number of inconclusive arguments. This type of control is not likely to be a panacea. It gathers support from groups with quite different ideas and objectives, but whether a single program could be developed to reconcile the points of view of the many supporters remains to be seen.

The economic information available is so scanty that quality controls can be attempted only if the industry is willing to try experiments for which the results are unpredictable; it may well choose to do this since improved quality has stimulated demand in other fields, and also quality standards have been used with some success to restrict volume marketed. Intensive research, both on demand as affected by wine characteristics and of quality and production as affected by cultural practices, can be very useful and should improve the prospect of future quality programs.

E. Surplus Control with a Stabilization Fund

It is possible to remove surplus by purchasing it with a stabilization fund. The principle behind setting up such a pool is the same as if the pool were created by a direct set-aside. That is, by removing 5 to 15 per cent of

the supply from regular trade channels, prices may be increased by an even larger percentage so that the net effect will be an increase in total revenue. Proponents of stabilization funds consider that the expenditure of from 3 to 10 million dollars for surplus purchase may bring returns of an even greater amount to the grape industry. A stabilization fund would be another way of accomplishing what a compulsory set-aside program might accomplish without the disagreeable regulation which set-asides involve. Which program would be most successful depends on many factors.

The basic principle of surplus control is sound. Conditions in the grape industry are probably suitable for the successful use of the principle, but how well either a fund or a set-aside would work would depend on the skill and judgment with which it was administered. Because money is a very flexible weapon, a stabilization fund permits the accomplishment with relative ease of many different kinds of surplus control, any one of which might be put into effect directly and without a fund but only after complicated, difficult, time- and energy-consuming referendums, hearings, and meetings. Besides being used to buy up the surplus, a fund might be used for processing the surplus into by-products, for export subsidies, for payments for preharvest vine stripping and green dropping, for vine removal, for collection, analysis and dissemination of improved market and outlook data, and for research.

A stabilization fund to be used in purchasing surplus is economically sound if any kind of surplus removal is sound. Such use of a fund is legal and probably more administratively practicable than any other proposal. The use of a fund is more acceptable to the grape industry than any other proposal. However, the collection of a fund, the necessary prerequisite, may not be so acceptable.

Problems Which Must Be Solved for a Fund Program To Be Successful

One of the most difficult and important problems which a successful stabilization fund program must solve is accumulating a fund large enough to do the job. We do not know how large a fund would have to be to meet the situation of the next few years. The need obviously depends on how high a level of support is attempted. A good guide as to what might be needed is to consider what size fund would have been necessary if such a program had been in effect in the recent past.

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A stabilization fund to be used in purchasing surplus is economically sound if any kind of surplus removal is sound. Such use of a fund is less and probably more administratively practical than any other proposal. The use of a fund is more acceptable to the grape industry than any other proposal. However, the collection of a fund, the necessary prerequisite, may not be so

Problems Which Must Be Solved for a Fund Program To Be Successful

One of the most difficult and important problems which a successful stabilization fund program must solve is accumulating a fund large enough to do the job. We do not know how large a fund would have to be to meet the situation of the next few years. The need obviously depends on how high a level of support is attempted. A good guide as to what might be needed is to consider what size fund would have been necessary if such a program had been in effect in the recent past.

For the sake of illustration, let us assume that a stabilization fund program had been in effect from 1947 to 1951 and that the board administering the fund had bought or removed from the market, as surplus, all production of grapes, or the equivalent in grape products, which exceeded a given figure. The board would attempt to segregate the surplus as early as possible by paying for green dropping and, possibly, for thinning and vine pulling. Key considerations would be obtaining the surplus as inexpensively as possible and removing it before it had a chance to depress the market.

Assume, for hypothetical purposes, that all production over 2.8 million tons was purchased. When the volume produced exceeded that figure, only the equivalent of 2.8 million tons of grapes and grape products would be permitted flow to commercial markets, and the resulting price might be that associated with a total supply of about 2.8 million tons. Purely for illustration, let us assume that the price which resulted averaged $28 per ton, or the equivalent price for grape products, and that the surplus tonnage was purchased at $28 a ton.

Given these hypothetical conditions, Table V-A shows how it would work out to have followed such a policy in the period 1947 to 1951 if there were collected the equivalent of $1 per fresh ton on all grapes. To begin 1951 operations, the fund would have had a balance of 7 million dollars, thanks to two short crops, which would have permitted removing most of the large 1951 surplus. There would be no funds to help out the 1952 crop.

Table V-A also shows that a higher level of support would not have been justified with assessments of only $1 per ton. If, for example, the board attempted to buy the equivalent of all production over 2.65 million tons and had to pay an average price of $30 per ton, the necessary expenditures would have bankrupted the fund almost at once. Table V-B shows what the result would have been, and Table V-C shows that, with assessments of $2 per ton, purchase of all production over 2.65 million tons at $30 per ton would have been about as practicable as purchases of all over 2.8 million tons with $1 per-ton assessments.

At the same time, even with as high an assessment as $2 per fresh ton, no support higher than that contemplated in Table V-C could have been attempted. Table V-D illustrates what the result of attempting support at a higher level would have been. If such a level of support were desired, much higher rates of assessment would have been called for.

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Given these hypothetical conditions, Table V-A shows how it would work out to have followed such a policy in the period 1947 to 1952, if there were coordination the equivalent of $1 per fresh ton on all grapes. To begin 1953 operations, the fund would have had a balance of 7 million dollars, thanks to two short crops, which would have permitted removing most of the large 1951 surplus. There would be no funds to help out the 1952 crop.

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TABLE V

Hypothetical Illustrations of One Possible Use of a Stabilization Fund If It Had Been in Effect, 1947-1951

A

Assumptions: a. Assessment on all grapes of $1.00 per ton. b. Purchase of equivalent of all grapes in excess of 2.8 million tons. c. Average cost of purchases: $28 per fresh ton.	Year	Production	Production over 2.8 million	Receipts	Expenditures	Balance	Cumulative balance
		thousands of tons		millions of dollars			
	1947	2,840	40	2.8	1.1	+ 1.7	+ 1.7
	1948	2,890	90	2.9	2.5	+ 0.4	+ 2.1
	1949	2,490	none	2.5	0	+ 2.5	+ 4.6
	1950	2,410	none	2.4	0	+ 2.4	+ 7.0
	1951	3,224	424	3.2	11.9	- 8.6	- 1.6

B

Assumptions: a. Assessment on all grapes of $1.00 per ton. b. Purchase of equivalent of all grapes in excess of 2.65 million tons. c. Average cost of purchases of $30 per fresh ton	Year	Production	Production over 2.65 million	Receipts	Expenditures	Balance	Cumulative balance
		thousands of tons		millions of dollars			
	1947	2,840	190	2.8	5.7	- 2.9	- 2.9
	1948	2,890	240	2.9	7.2	- 4.3	- 7.2
	1949	2,490	none	2.5	0	+ 2.5	- 4.7
	1950	2,410	none	2.4	0	+ 2.4	- 2.3
	1951	3,224	574	3.2	17.2	-14.0	-16.3

C

Assumptions: a. Assessment on all grapes of $2.00 per ton. b. Purchase of equivalent of all grape production over 2.65 million tons. c. Average cost of purchases of $30 per fresh ton.	Year	Production	Production over 2.65 million	Receipts	Expenditures	Balance	Cumulative balance
		thousands of tons		millions of dollars			
	1947	2,840	190	5.7	5.7	0	0
	1948	2,890	240	5.8	7.2	- 1.4	- 1.4
	1949	2,490	none	5.0	0	+ 5.0	+ 3.6
	1950	2,410	none	4.8	0	+ 4.8	+ 8.4
	1951	3,224	574	6.4	17.2	-10.8	- 2.4

D

Assumptions: a. Assessment on all grapes of $2.00 per ton. b. Purchase of equivalent of all grapes in excess of 2.5 million tons. c. Average cost of purchases of $35 per fresh ton.	Year	Production	Production over 2.5 million	Receipts	Expenditures	Balance	Cumulative balance
		thousands of tons		millions of dollars			
	1947	2,840	340	5.7	11.9	- 6.2	- 6.2
	1948	2,890	390	5.8	13.6	- 7.8	-14.0
	1949	2,490	none	5.0	0	+ 5.0	- 9.0
	1950	2,410	none	4.8	0	+ 4.8	- 4.2
	1951	3,224	724	6.4	25.3	-18.9	-23.1

It is clear that it will be difficult for an industry financial stabilization fund to reach a sound financial position. What may seem to be adequate reserves can be wiped out in a short period. Also, growers are not likely to permit a fund to build up year after year with no immediate benefit. Furthermore, the upward trend in grape production means that a fund might find itself trying to cope with larger and larger surpluses.

A fixed support policy probably could survive only if it pursued so conservative a support policy as to be unacceptable to the industry. A flexible program with a more liberal support policy might have a chance for survival and might actually contribute more to the industry. However, operating a flexible program would call for a much higher level of statesmanship on the part of board members. The advantage of a fixed policy is that it makes it easier for a board to resist the temptation to set the level of support higher than their stabilization fund warrants.

F. Conclusions on Surplus Control

The thought that there are too many grapes suggests the remedy of removal. "Too many grapes" is really a statement that the laws of supply and demand have worked out to the disadvantage of the grape industry. The "too many" is too many for a satisfactory market price to result.

Although program development interest has been mainly in set-aside programs and stabilization funds, there have been other suggestions. The thought that price floors might be fixed has been expressed, but floors are probably not legal nor could the prices be enforced outside of California boundaries. The effect of price floors on normal marketing practices would be in many ways comparable to price control during World War II, with the danger of constant trouble over secret rebates, price cutting, and other self-defeating defects.

Export subsidy and dumping plans are sometimes proposed as a cure-all. Some have strongly favored a program devoted exclusively to vine pulling, and quality standards are sometimes proposed as a complete program. While all of these plans have some merit in an over-all program, it is usually a mistake to think that any one can completely cope with the surplus situation. A flexible set-aside or stabilization program would make use of any of these proposals as the situation made it seem advantageous.

There are also some proposals which seek to restrict the sale of grapes by excluding a portion of grape production from certain markets as, for example, suggestions that only certain varieties of grapes be permitted in wine manufacture. Usually it is claimed that certain varieties have a prior right to wine

It is clear that it will be difficult for an industry financial obligations time to reach a sound financial position. What may seem to be adequate reserves can be wiped out in a short period. Also, reserves are not likely to permit a fund to build up year after year with no immediate benefit. Furthermore, the upward trend in crude production means that a fund must find itself trying to cope with larger and larger surpluses.

A fixed support policy probably could survive only if it were used to conserve a support policy so as to be used only to the industry. A flexible program with a more liberal support policy might have a change for survival and might actually contribute more to the industry. How ever, enactment a flexible program would call for a much higher level of legislative action on the part of board members. The advantage of a fixed policy is that it makes it easier for a board to resist the temptation to set the level of support higher

F. [illegible]

The thought that there are too many grapes sometimes the result of removal. "to much grease" in reality a statement that the laws of supply and demand have worked out to the disadvantage of the grape industry. The "storage" is too long for a satisfactory market price to result.

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Dumps, holiday and changing place are sometimes proposed as a cure-all. Some have recently favored a program devoted exclusively to wine publicity and quality. Advertising are sometimes proposed as a concrete program. Taking all of these plans are good mostly in an over-all measure. It is unlikely to think that any one can successfully cope with the surplus situation. A thorough self-aware or specialized program would make use of only of these proposals as the ultimate to make it show success.

There are also some proposals which are to prevent the sale of grapes by excluding a portion of grape production from certain purposes as, for example, suggestions that only certain varieties of grapes be permitted in wine manufacture. Usually it is claimed that certain varieties have a better wine or more

markets, and no thought is given to compensating those whose grapes would be excluded for the loss they would suffer. Despite the fact that such proposals often are designed for the benefit of one group of grape growers at the expense of some others, it is possible that a program developed along these lines would actually reduce the volume of grapes marketed, thereby increasing net returns enough so that those growers who benefited directly could share the gain with those whose grapes were excluded in a satisfactorily equitable manner. Working out a means for such sharing would be a novel experience in market control, as nothing of this nature has ever been seriously considered.

Regardless of the particular techniques which set-aside or stabilization fund programs use, with proper organization either type could reduce the average size of the crop marketed and thereby increase returns to growers. These programs are legal and can be made administratively feasible. Arguments about their relative merits should revolve not so much about their basic economic soundness as about such issues as their acceptability, their permanence, the ease and cost of administration, upon whom the burdens and benefits fall, and the workability of regulation. To a large extent, the problems of program selection are noneconomic.

One economic consideration in selecting a type of program is that programs, which permit the board to determine the amount of grapes and grape products to be marketed, precisely will have great advantages. There is a particular quantity which when properly utilized will insure maximum returns to the industry. What it is will be difficult to determine, especially very far in advance.

This consideration has a bearing on the selection of either a set-aside or a stabilization fund program. It means a set-aside program could not easily be devised which would permit only a certain precise amount of dessert wine to be made. What the program can in effect say is that a certain per cent of all dessert wine made must be set aside. This percentage should be set before the size of the crush can be known and the quantity to be marketed as free tonnage can be determined by the board only with the same degree of accuracy with which it can estimate the total dessert wine crush.

Because it permits the decision to be made at the very latest possible time, a program under which surplus is either set aside or purchased at the time of harvest has an advantage over a program where the decisions must be made far in advance as, for example, vine pulling or green dropping programs. Reducing the over-all acreage would be an especially unprecise form of control as it would leave us with nearly the same burden of uncertainty as before. Thinning in the early spring to achieve a final crop of a certain size would be very difficult too.

Comparison of Stabilization Funds and Set-Asides

The relative advantages of stabilization funds and compulsory set-asides can be illustrated by a number of points:

1. Under most compulsory set-asides, some of every grower's grapes must be committed to the surplus or reserve pool regardless of variety, grade, or quality. Systems for grading the grapes that go into the surplus and compensating growers according to grade are necessarily arbitrary and debatable. However, when a surplus pool is created under a stabilization fund program with no compulsory set-asides, perhaps purchasing grapes and grape products offered to it at prices it announces it will pay, since all sales are voluntary, the pool appears to the growers as a new market rather than as a new regulatory body. However, the feature which may be objectionable in such a plan is that sellers tend to deliver to the stabilization pool the minimum grade which will meet requirements. Under a compulsory stabilization pool program, the average grade of the pool would tend to be a higher average, comparable to that of the entire crop.

2. Under a stabilization fund pool, the grower could receive payment for all of his grapes as soon as if there were no program at all. Growers would not have to wait for sale of the stabilization pool. Cooperatives could liquidate their marketing pools and distribute funds at least as fast as with no program. On the other hand, if there were a compulsory set-aside, growers might not receive final compensation, and cooperatives would not be able to close out their pools until the stabilization pool was finally liquidated. Also, payments for the reserve and surplus tonnage would come from the control board and not from the handler to whom the grapes were delivered.

3. Handlers have a special compulsory burden of regulation, record examination, and special obligations if there is a compulsory set-aside. Where there is a stabilization fund, most of these are avoided, and no handler need store the surplus for the stabilization program unless he wishes. His records might still need to be examined to determine what volume each grower marketed, and he might have to pay an assessment into the stabilization fund and be required to assist in collecting it.

4. A stabilization fund provides the only practicable way in which the entire grape industry can help carry the burden of the surplus when that surplus descends on one particular segment, as it often does. Only with a fund is it practicable for a program deliberately to direct the surplus into that sector where it is easiest to handle. Otherwise, those who market in that sector

5. Under a stabilization fund pool, the grower could receive payment for all of his grapes as soon as if there were no program at all. Growers would not have to wait for sale of the stabilization pool. Cooperatives could liquidate their marketing pools and distribute funds at least as fast as with no program. On the other hand, if there were a compulsory set-aside, growers might not receive final compensation, and cooperatives would not be able to close out their books until the stabilization pool was finally liquidated. Also, payments for the reserve and surplus tonnage would come from the control board and not from the handler to whom the grapes were delivered.

6. Handlers have a special compulsory burden of regulation, beyond exercising the rights of a stabilization fund, most of these are avoided, and no handler needs to have the surplus for the stabilization program unless he wishes. His records might still need to be examined to determine what volume each grower marketed, and he might have to pay an assessment into the stabilization fund and be required to assist in collecting it.

7. A stabilization fund provides the only practicable way in which the entire grape industry can help carry the burden of the surplus when that surplus descends on one particular segment, as it often does. Only with a fund is it

would be unfairly penalized. Unless there were a way for all to help, the program would be unfair to that segment which was given the biggest burden of surplus to carry.

5. While both types of programs could set up surplus and reserve pools, under a set-aside program every grower is anxious for the sale and payment of his equity in the pool. With a stabilization fund, his equity is in the fund rather than in the pool itself, and since growers probably would be willing to agree that funds collected from the sale of surplus should be retained for future emergencies as part of the stabilization fund, there would be no such pressure.

6. A compulsory set-aside program probably could not survive if it were necessary to dispose of a substantial surplus pool with no return to the growers. However, a pool purchased by a fund could probably be disposed of without as serious repercussions.

7. Because sales to a stabilization fund program board are voluntary, it would never be as certain that it would actually be possible to acquire the surplus under such a program as if there were a compulsory set-aside. If prices were expected to go up as a result of surplus purchases by a fund, there might be a reluctance to sell at market prices; this argument would not apply to purchases made to maintain the going price level.

8. While growers may be willing to set aside a fairly large part of their crop, the assessment which they would be willing to pay would, in all likelihood, accomplish considerably less. Thus, while a 20 per cent set-aside might be accomplished by a compulsory program, a comparable set-aside with a fund would call for funds equal to about 25 per cent of the value of the entire crop (at the price it would bring if it were all sold). Such a fund could not be collected in any one season.

9. Under a stabilization fund, it is possible to spread the burden of the set-aside over several marketing seasons. Funds could be accumulated in years of short crops and good prices, to be used in years of surplus. A compulsory set-aside would not be able to do this. However, this argument is partly based on an illusion since, under an effective program, it would never be a burden to be required to set aside part of a crop.

When growers state that they cannot afford to contribute to a stabilization fund, if the program is sound and the fund is competently used, they are always wrong. If, for example, average prices for grapes were $20 per ton and growers could not afford to accept less, then growers could very well afford to pay assessments of $4 to $8 per ton, <u>provided</u> the money were used to produce gross returns considerably in excess of $24 to $28 per ton.

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6. A compulsory self-help program probably could not survive if it were necessary to dispose of a guaranteed surplus each month to retain the program. However, a pool purchased by a fund could probably be disposed of [illegible].

7. Because action to a stabilization fund program becomes voluntary, it would never be as certain that it would actually be possible to acquire the surplus under such a program as it there were a compulsory set-aside. It prices were expected to go up as a result of surplus purchases by a fund, there might be a reluctance to sell at market prices; this argument would not apply to purchases made to maintain the price floor.

8. While growers may be willing to set aside a fair share part of their acreage, the assessment which they would be willing to pay probably in all likeli-hood, [illegible] would consist mostly [illegible] of the commodity accumulated by a compulsory program, a comparable set-aside with a fund would call for funds equal to about ½ per cent of the value of the commodity set-aside would be required to set aside part of a crop.

Even growers might feel they cannot afford to contribute their stabilization [illegible] if the problem is caused by [illegible] they are willing to [illegible] over several [illegible] years. A fund could be accumulated in years of short crops and used [illegible], to be used in years of surpluses. A compulsory set-aside would not be able to do this. However, this argument [illegible] would [illegible] an effective program, it would [illegible] a burden to be required to set aside part of a crop.

If the problem is caused and the fund is [illegible] they can [illegible] [illegible] [illegible]

If paying an assessment to an effective program meant that a grower would have to accept less for his crop, there would be no justification for any kind of surplus control program. The only legitimate object of a program is to obtain more, not less.

10. Money in a stabilization fund could be combined with funds from the government or other sources. Use of the funds for export subsidization might be more economical than the creation of a pool which could only be destroyed.

11. It may be necessary to start accumulating a stabilization fund well in advance of the season in which the surplus is to be removed. Usually, it will be difficult to remove any surplus until the money is in hand. Lending agencies may sometimes extend credit. Few growers or handlers are in a position to pay assessments until after receiving the proceeds from the sale of their crops, and often, especially with cooperatives, there is a long delay in receiving the proceeds of sale.

12. A fund always runs the danger of being exhausted by several successive surplus years, whereas a set-aside could continue with more confidence in its ability to cope with continuing difficult situations. This point is especially apropos when there is no fund available and when none can be accumulated easily.

13. Past experience shows that with funds the danger is particularly strong that a board may yield to the temptation to speculate. Rather than dispose of surpluses, a board may like to hold them with the hope of achieving a profit from its later sale. Such operations have been disastrous to stabilization funds in other industries and to large cooperatives of the type organized in the late 1920's.

Summary

One criticism leveled against all surplus control programs is that they provide incentives to expand production and thereby increase the surplus. If effective, these incentives could defeat a program in the long run. That they might be a danger is indicated by the fact that even with low prices and uncertain market conditions some surplus is produced. Once a surplus control program had generated such an expanded production, the control program could not be dropped without the danger of considerable economic distress. Only when there is a means to prevent an expansion of production in the wake of higher returns produced by a control program can this danger be avoided. In the grape industry no obvious legal means exist.

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On stabilization funds versus set-asides, there are pros and cons and many thorny problems in developing programs of either kind. The advantages of the fund proposals tend to be associated with the flexibility of money as a device for control, the lesser degree of intrusion into the affairs of program participants, and the lesser need for arbitrary regulations. A stabilization fund would have the greatest advantage where a program is to accommodate a wide diversity of interests and economic situations. Under the set-aside approach, the surplus is certainly under control; and where money is not readily obtainable, a set-aside can still be put into effect. Relatively speaking, the advantage of a set-aside is strongest in industries where the crop is most homogeneous, where most members are in the same position with regard to marketing and production, and where regulations can be drawn which affect all with reasonable equality. In the grape industry these conditions are far from fulfilled, and a set-aside would be more difficult than in many more simply organized industries.

An over-all grape industry program will probably have to be a stabilization fund type since no way can be set for equitable set-asides of raisins, wine, fresh grapes, etc., under one program. Where a program is restricted to one sector, either a set-aside or stabilization fund could probably be made to work.

V. Allocation Improvement and Other Programs

Advocates of other types of programs point to the moderate size of the long-run surplus. Severe economic distress is more associated with short-run surpluses and variations in production than long-run surplus. It has been noted that the long-run average rate of return for grapes has not been particularly low since the war; and when production has been no more than the average of 2.8 million tons, a tolerable marketing situation usually has existed. Distress is not continual, as might be expected with a substantial long-run surplus, but recurs when production greatly exceeds the average.

Those programs which are not primarily devoted to surplus control, but which attempt to improve marketing by other means, are classified as follows:

1. Programs to smooth out year-to-year fluctuations in supply.
2. Programs to help growers make better marketing decisions.
3. Programs to stimulate demand for grapes and grape products.
4. Segmental control programs.

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Those programs which are not primarily devoted to surplus control, but which attempt to improve marketing by other means, are classified as follows:

1. Programs to smooth out year-to-year fluctuations in supply.
2. Programs to stimulate demand for grapes and grape products.
3. Programs to improve marketing by other means, such as research and

Smoothing Out Year-to-Year Fluctuations in Supply

Programs with this objective are designed to take care of short-run surplus situations. They are based on the belief that no actual removal or destruction of surplus is necessary but that adequate prices will result if the long supply year's surplus is carried over and marketed in the short years.

There is often great similarity between such programs and programs for the removal of long-run surplus. The two types are confused in the minds of many proponents, and a program to smooth out short-run variations in supply is often favored by those who have not realized that actual destruction and permanent removal of surplus would be essential in the case of a genuine long-run surplus.

One way to smooth out variations in grape yield would be to prune and thin grape vines each year to the point where only a "normal" yield would result. With a given standard always applied, variations in yield would be reduced because growers would automatically prune and thin intensively in years when indications of a heavy crop existed and lightly when a small crop was indicated. This technique could do nothing, however, about yield variations which were the result of summer weather conditions, sunburn, bud mite, etc.

That such a practice would tend to smooth out variation in year-to-year production is suggested because some variation in annual production results from differences in growing conditions early in the year. Almost every year, vines develop more buds than they can bring to the state of mature bunches of grapes. If, therefore, pruning were performed to reduce the number of bunches to a standard "normal cropping" amount, some production variability would be eliminated, and there would be an improvement in grape quality. An objective, enforceable standard of cultivation practice would be extremely difficult to develop. It has been maintained, however, that examination of mature grapes would be a sufficient guide. Evidence on this point is not clear.

The other approach which has the advantage of being better understood suggests that, with a stabilization fund, short-term storage operation could be conducted for raisins, wine, or any other storable products.

Storage programs designed to promote price stability usually make use of a stabilization fund to purchase short-run surpluses, with the expectation that the funds will be recovered from sales at regular market prices in later years. Stabilization funds for these programs differ from the so-called stabilization funds of surplus removal programs in that, with surplus programs, funds are spent not to be recovered, and the acquired surplus is either disposed of at low prices or destroyed.

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A stabilization program which succeeded in evening out supplies would not necessarily increase the average total returns to grape growers. It may be that returns to growers are actually greater under conditions of variable price levels. Some feel that in an unstable situation they are better able to profit by their speculative skill (especially where government help is available).

A fund operated to promote price stability rather than surplus removal is not likely to make a profit. If the management attempts to make profits by price manipulation, the fund cannot successfully fulfill its purpose of promoting stability; and while profits may be made, the gain to the fund is likely to be less than what growers lose as a result of price manipulations.

Some thought has been given to the possibility of encouraging price-stabilizing storage operations among private operators. It is argued that the grain trade illustrates how stabilization takes place automatically through the operation of the futures market and other characteristic features of grain trading. However, whether the grain futures markets have enhanced price stability is open to question, and it is also doubtful that conditions in the grape industry are as suitable for a futures market.

Improving Allocation Among Uses

Inefficient allocation means lower returns to the grape industry. One of the causes of grape industry distress is the tendency of the industry to shift excessively from one market to another. The swings in allocation are actually proportionately greater than the swings in varietal production. Allocation among uses is so inefficient that even when there is no oversupply of grapes there may well be segmental surpluses. Often, growers and processors as a whole demonstrate by their actions that they have insufficient knowledge and marketing information to pick the right markets. A more stable grape industry and a more efficient allocation of the crop are objectives so entangled that one probably cannot be achieved without the help of the other.

Several current proposals suggest that making better market news information available would help allocation efficiency. Prompt information on shipments of fresh grapes and reports of cars en route strikingly assist the fresh shipping industry in making marketing decisions. Crush reports and raisin lay reports give assistance to other segments, and it is felt that this sort of information should be further developed.

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Some thought has been given to the possibility of incorporating price-stabilizing storage operations under private ownership. It is argued that the grape trade illustrates how stabilization takes place automatically through the operation of the futures market and other characteristic features of grain marketing. However, as many observers have pointed out, the grape industry is not ready to do this, and it is also doubtful that conditions in the grape industry are as suitable for a futures market.

Institutional Adjustments

Institutional adjustment means lower returns to the grape industry. One of the causes of grape industry distress is the tendency of the industry to shift excessively from one market to another. The swings in allocation are actually unnecessarily greater than the swings in varietal production. Allocation under free competition, that is, that even when there is no oversupply of wines there may well be economic surpluses. Often, growers and processors who do concentrate by their actions that they have insufficient knowledge and marketing information to pick the right materials. A more stable grape industry and a more efficient allocation of the crop are objectives so measured that one presently cannot be achieved without the help of the other.

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Purely statistical information is of relatively little use to growers who lack the time or training to analyze the data. Therefore, some persons advocate an extensive and improved grape marketing information service which would collect more data and publish it faster than the funds available to government agencies now permit. These agencies could then do much to make the significance of their findings widely known.

How much could be accomplished by a market information and publicity program is hard to predict, nor do we know if grape growers and handlers, even with the best information and advice, would succeed in avoiding shortages in some sectors and surpluses in others.

Improper allocation is not entirely the result of inadequate market information but also results from physical factors beyond the control of the growers. Time of maturity is sometimes an unknown variable. Labor shortages could be an important factor. Weather conditions may have a great deal to do with crop allocation. Where processing facilities in one outlet are inadequate, some growers may be forced into other markets which pay lower returns.

Demand Stimulation

Other proposals seek to improve the market for grape products by increasing consumer demand. Demand-increasing programs are often proposals for advertising and trade promotion work, but other types seek improvement in the quality of the product, improved packaging, or development of new products or markets. These programs are often sponsored together with others since it is generally believed that, while stimulating demand may be sound industry policy, if it works at all, its effectiveness is long run. How advertising works is obvious enough. Trade promotion work includes such activities as having agents visiting wholesalers, retailers, and users of products, giving them suggestions, helping solve difficulties, suggesting new ways of handling the product, and so on.

Except where an area of common interest is found, an over-all trade promotion program would necessarily be composed of essentially separate campaigns for each product. Quite properly, trade promotion policies would be under the control of those who are directly concerned with the marketing of that product. An over-all board might attempt to coordinate policy or serve as an industry-wide service bureau.

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Other programs seek to improve the market for grape products in the consumer's mind. Brand-increasing programs are often proposed for advertising and trade promotion work, but other types such improvement in the quality of the product, improved packaging, or development of new products or markets. These programs are often sponsored together with returns going to the commodity believed that, while stimulating demand may be sound industry policy, if it works at all, its effectiveness is long run. New advertising media is obvious enough. Trade promotion work includes such activities as inviting trade visiting wholesalers, retailers, and users of products, giving them information, helping solve difficulties, suggesting new ways of handling the product, and so on.

Except where an area of common interest is found, an over-all type of market program would necessarily be composed of essentially separate components. Quite frequently, trade promotion policies would be a proper thing for one group of those who are directly concerned with the marketing of their product to be over-all. Even might subsidize to compensate policy or serve as an incentive while serving others.

Programs to stimulate demand by improving the quality of the product are based on a solid principle. Before they can proceed, however, it is necessary to determine what the taste preferences of consumers are. For example, it is notorious that the popular "uneducated" taste for wine differs from that of the expert, and it does not follow that producing a wine of high quality by the expert's standards would increase sales in the mass market.

Segmental Marketing Programs

Much attention has been given to the problem of what scope a marketing program must have to be effective. It has been argued that marketing problems are, in the main, special for each segment of the grape industry and can be handled better by programs operated independently by the groups most directly concerned. In opposition to this claim is the argument that the surplus problem is an over-all problem which needs an over-all program to handle it.

The arguments in favor of an over-all program have received much attention, but there are also sound arguments in favor of segmental programs. When trade promotion is the problem, it is generally agreed that it can be handled best by the individual segments.

Another argument for segmental programs is that grape varieties differ and all grapes cannot be treated alike. For example, the growers of wine variety grapes have a price advantage which means that they may be in a fairly satisfactory economic condition in years which bring distress to those delivering raisin and table variety grapes for crushing. It is perfectly understandable that such groups as the coastal grape interests or the table grape interests should consider program proposals in a somewhat different light than do such groups as valley growers and processors.

Where possible, it is advantageous not to include groups with sharply conflicting interests in a control program. The more points of view to be accommodated, the more the effectiveness of the program is likely to be watered down. Because they are restricted groups with relatively similar economic interests, as contrasted to an industry-wide board, segmental program control boards can probably operate with more harmony than can an over-all program board.

It will be possible in some cases for a single segment to achieve improved marketing conditions by operating its own control program. Under these circumstances, that segment might find that an over-all program would either contribute little to their well-being, or would even interfere with that segment's

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ability to use the remainder of the grape industry as a dumping ground for its own surplus. One segment might find a segmental program more advantageous than an over-all program so long as the remainder of the grape industry was not organized, but even if the entire industry were to become organized, the problem of coordination between segments would be severe.

The need for coordinated surplus removal is a strong reason for having an over-all program. The interrelationships between parts of the grape industry mean that, with several segmental programs and all segments strongly interrelated, the situation is likely to degenerate into destructive jockeying for position which would reduce the returns in all segments and nullify in some measure the advantages of the program. To an extent, each program would be forced to such jockeying for position in order to survive. Because the grape industry has seldom had concurrent programs in major segments, these effects have not been much experienced, but it is worth recalling that, in the raisin and wine prorate programs of 1938, there were carefully drawn arrangements for dividing the total grape surplus between the two programs. The failure of this arrangement had a serious effect on both programs.

The idea that there should be separate sector programs seems to arise out of the concept of the grape industry as a three-sector industry with somewhat separate grape types and separate market outlets. To a large extent, this is a fiction. Few would deny that, of the so-called raisin varieties, muscats can be used to make good wine, and it is contended that the neutral character of the Thompson Seedless grape makes it desirable for wine manufacture. The idea that the three segments really are separate is strongly held among packers, shippers, and vintners since these processors have far less in common that do growers of the grapes they use. The argument for separate programs is strongest on the processor and packer level, but at the grower level there is more justification for a principle of "one market, one program."

The position of the coastal county grape growers and vintners toward a control program is known to be one of long-standing opposition. It is usually based on the contention that there is no surplus of coastal wine variety grapes. Arguments over this issue are usually confused by various sides making quite different unstated and fundamental assumptions.

To the extent that a given grape market is supplied by grape varieties not in surplus for which no other varieties can be substituted, that market will not be affected by a surplus in the other varieties. Some table wine producers are no doubt in this desirable position: the position of prestige label Grey

Riesling, for example, is not going to be much affected by surpluses of emperors, Thompsons, and Tokays. Much table wine is in this position to a limited degree. Price relationships between coastal area dry wines and valley wines suggest a significant level of independence. Apparently, it is customary to make table wine, at least in part, from nonwine variety grapes, or from wine varieties grown in the Central Valley which suffer the same excesses of production as do other valley grapes.

The statement that there is no surplus of wine variety grapes has no meaning if in fact it is possible to substitute grapes which are in surplus for wine varieties, even though this must be done at lower prices. Such substitution is commonplace in dessert wines and is carried on to an unknown degree for table wines. The vintners who are most clearly unaffected and who, therefore, have a legitimate claim to opposing their inclusion in an industry-wide program are those who account for the small volume of fine table wine produced each year. Most table wine producers do not have a quality of product or a class of discriminating consumers which permit them to isolate themselves completely from the problems of valley production. They are nonetheless in a relatively protected position with the possibility of achieving further protection through further educating the tastes of their consumers or improving quality.

It is true that, if the coastal areas were affected by a surplus, they would benefit most if they were able to avoid sharing the costs of a program. However, it may also be true that, if an over-all program could be agreed upon only provided that the coastal areas would carry a share, the economic gain might exceed the costs of that share. So far, no finding of fact has been made on this issue.

Miscellaneous Programs.

Two kinds of programs which loom large in the thinking of agricultural groups deserve mention. The first is the collective bargaining type of program, sometimes based on the idea that there is collusion among buyers which must be fought by combinations among growers. This type of proposal has been tried in the grape industry repeatedly. Such attempts are by their nature one season long, and there is no easy way to judge their effectiveness. As a general principle, bargaining strength of opposing parties depends on unity in the face of resistance from the other side.

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Other programs often proposed seek improvement in the physical efficiency of marketing processes. Private interests, the state and federal agricultural organizations, as well as colleges of agriculture, devote a good deal of time to marketing efficiency. Up to recently, there has been relatively little scientific research on the marketing of grapes and grape products. This situation has improved recently so far as table grapes are concerned.7/

VI. Conclusions

The marketing problems which disturb the grape industry are complicated ones, and the ultimate solution probably cannot be simple. At least neither the exact nature of the problem nor the solution is obvious.

The thought that the problem can be analyzed and a control program concocted which can correct the difficulties is behind many of the proposals which have been discussed in recent years. It is an idea worth pursuing since analysis and planning are usually economical substitutes for a lengthier period of trial and error. However, at best, a program will be an experiment whose results cannot be predicted with any accuracy.

There are many variants of a limited number of basic ideas about how marketing and returns might be improved. By far the most important idea is surplus control which might be accomplished by such means as compulsory set-aside programs, programs for purchasing surplus on the open market, price-fixing proposals, and proposals to exclude certain grape varieties from certain desirable markets. Despite the similarity of their basic idea, these proposals differ importantly in their details; and the success or failure of a program may depend not so much on the merit of its basic idea as the competence with which the details are worked out.

The basic ideas of most proposals are sound as general principles, but they may not always apply to particular situations. With regard to the grape industry, the ideas of surplus control, improved marketing efficiency, stimulating demand, evening out the effects of fluctuations in supply and demand all seem sound enough. Hammering out a workable program that meets the criteria of legality, economic soundness, acceptability, and administrative feasibility takes time and patience.

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7/ See the series issued by Bressler, Sammet, and French of the Giannini Foundation which deals with efficiency in fresh fruit packing.

1/ See the series issued by Doeringer, Sumner, and Preuch of the Granmit-

In earlier programs many costly errors were made which have given market control a bad reputation with many. Too commonly, however, the objections are directly against faults which could be corrected and need not appear in new programs.

The fundamental principle behind a market program is that it permits a number of free and independent individuals to do some of the things which they would be able to do if there were in fact united under one management. Because of this, the most than can ever be expected is what it would be reasonable to expect a single unified management to be able to do; and, of course, even a monopoly cannot come out on top of every situation.

If it could be determined that demand for grapes is such that a program would be at least capable of increasing returns, the problem would become one of developing a workable program to accomplish that objective. Growers and handlers must agree to some kind of control by a committee which has the power, once established, to enforce compliance upon the unwilling. This aspect of control makes many hesitate to accept marketing programs as it means inevitable restriction on the desire of everyone to run his business to suit himself.

The basic problem of control is to frame a combination of control devices which will produce an optimum balance of economic gain against regulation. Skill in organizing a program consists of achieving this balance, and much concerning the problems involved in achieving it can be learned from past programs.

One of the first things to become obvious about past marketing programs was that gentlemen's agreements would not hold up for long. They broke down when some few individuals were forced by circumstances to violate the spirit of the agreement while others never intended to comply and said so from the first.

Another lesson well learned in the 1930's was that laws, which on paper put considerable power in the hands of a control committee, will not in themselves guarantee success. This first became evident in 1934 when the weakness of a raisin program organized under the provisions of the original Agricultural Adjustment Act brought it to a quick end. The 1938-1940 raisin proration program and the 1938 grape proration program are other examples.

Still another lesson learned early was the fallacy of buying a surplus at low prices thinking it possible both to support the market and sell the surplus later at a higher price. At one time many cooperatives used stabilization funds to follow this idea; those which survived have usually modified their policies. While a stabilization fund may be used to stabilize prices, it cannot take care of a long-run surplus situation.

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One of the most glaring lessons is the futility of attempting to organize a control program once the grape season is under way. Agitation for programs is typical of every year with low prices, but seldom does this agitation reach the program stage for the reason that working out a program with a chance for success means long negotiation with growers, packers, officials, and others directly concerned. Inevitably, every proposal must undergo hearings, modifications, and a complicated and timeconsuming procedure of approval which guarantees that no one's constitutional rights are being violated.

Sound administrative procedures are essential and depend on skill and time for adequate consideration. Poor organization, faulty drawing up of programs, misunderstandings, and errors arise from excessive haste. Probably only a continuous program can be ready for an emergency. If growers are to have marketing programs to help them in the bad years, they must reconcile themselves to the expense and trouble of maintaining a stand-by organization in the good ones.

One lesson from past control programs is that despite every effort it is seldom possible to convince everyone that he benefits from the program, and some complaints usually will be justified. Quite likely any reasonable program will be to the disadvantage of a few at the same time that it is to the advantage of most. Preventing shipments of low-grade fruit, for example, may benefit most, but it hurts the grower who usually raises it. This problem must be faced if the grape industry is to have a control program.

One serious unsolved difficulty arises from a popular conception that grapes, raisins, or wine in a surplus pool are worth as much as free market supplies despite the fact that free market prices are often high because the surplus has been removed from the market. Reselling the surplus would reduce the price. Past experience has shown that, if a control program holds out even the possibility that this might happen, handlers will shy away from building up any inventories. While surpluses can sometimes bring a good return from noncompetitive uses, sometimes they will not. Yet, even if the surplus is sold for next to nothing, setting aside a surplus may be an integral part of a profitable program.

Another serious problem about which we learn from a study of past programs is the importance of accurate preharvest information concerning the size and disposition of the crop. If decisions as to the handling of the surplus must be delayed for lack of information, then confusion, uncertainty, last-minute decisions, inability to find a home for the surplus in time, general discontent, and lack of confidence result. Where market information is imperfect, there is a great advantage to flexible and simple methods of control.

Another difficulty which has reappeared constantly in past programs has been getting widespread participation by growers. Typically, the burden of developing and operating a program is carried by a willing few. While the grape industry is fortunate to have such men, their minority is still a serious weakness.

Often, too much is expected especially in the first year. Growers are intolerant of inevitable errors. A program committee is often put in the difficult position of being given little power to regulate and, yet, expected to produce miracles. While the problem of marketing agreements is an economic one, the study of past programs indicates that the major unsolved problems are the noneconomic ones of organization within the industry to carry out economic objectives.

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